

# SOUTHERN TEXTILE BULLETIN

VOL. XXV.

CHARLOTTE, N. C., THURSDAY, MARCH 15, 1923.

NUMBER

## A Northrop Automatic Loom for Nearly all One-Shuttle Weaves

The Benefits that follow the installation of Northrop Looms—Lower Weaving Costs, Increased Production, Overtime Running Without Help, Etc.,—are not confined to a few weaves. There is a Northrop Loom for almost every One-Shuttle Weave. The exceptions are few—and their day is coming.

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Batiste	Double Cloth	Mole Skins	Terry Cloth
Beach Cloth	Dress Goods	Mosquito Net	Terry Towels
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Buckram	Duck	Napkins	Tire Fabric
Bunny Cloth	Endless Belt Tubing	Napped Fabrics	Tobacco Cloth
Cambrie	Flannelette	Osnaburgs	Toweling
Chambrays	Fustians	Oxford Shirting	Tricotines
Cheese Cloth	Ginghams	Pajama Checks	Umbrella Cloth
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Colored Goods	Holland Shades	Percales	
Corduroys	Huck Towel	Pillow Tubing	Venetians
Cotton Flannel	Jute Canvas	Plisse Cloth	Warp and Filling Sateens
Cotton Worsteds	Jute Upholstery Fabrics	Plush	Woolens
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Crash	Fine Lawns	Print Cloths	
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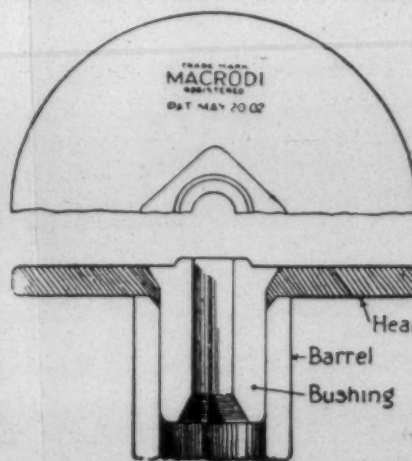
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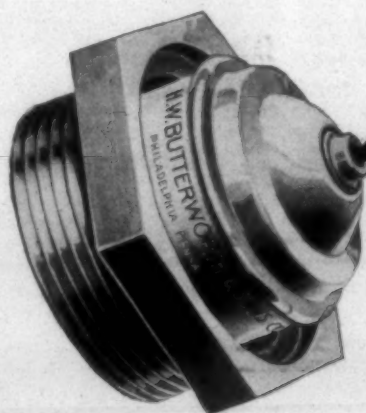
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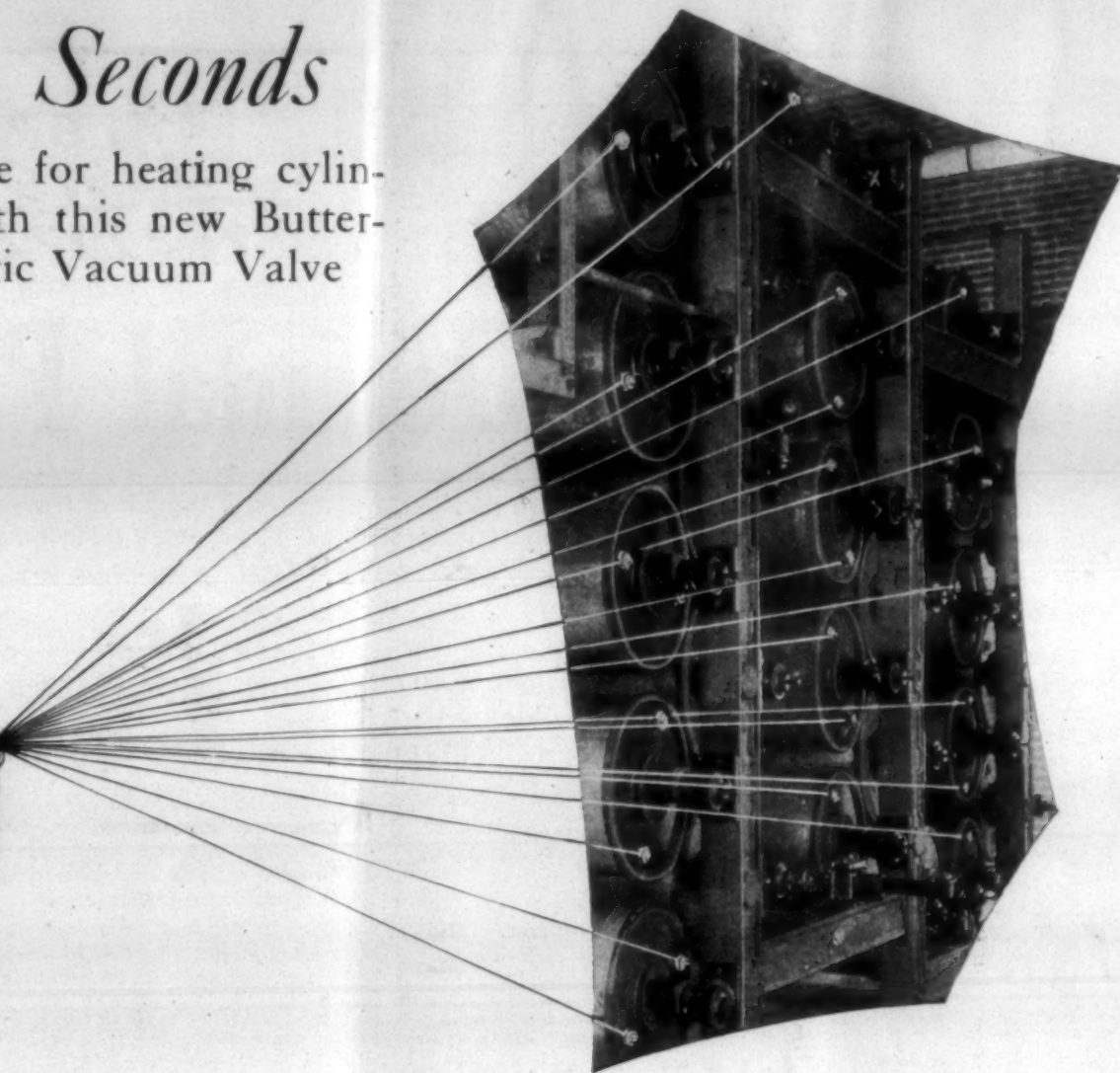
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is the average time for heating cylinders equipped with this new Butterworth Thermostatic Vacuum Valve



Patent Applied For

*The Butterworth Thermostatic Vacuum Valve can be fitted to all drying cylinders, being interchangeable with the ordinary vacuum valve.*



Compare this with time formerly required—from one-half to one and one-half hours. And not only this:

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The cylinder heats up evenly all over.**

These advantages in themselves are great enough but consider also that this new thermostatic vacuum valve under all conditions and more efficiently than any other vacuum valve prevents the collapse of cylinders due to sudden lowering of steam pressure.

We tell you all about the thermostatic vacuum valve in our folder, "Uniform Cylinder Heating," and meanwhile remember that cylinders in all Butterworth drying machines are equipped with this new valve.

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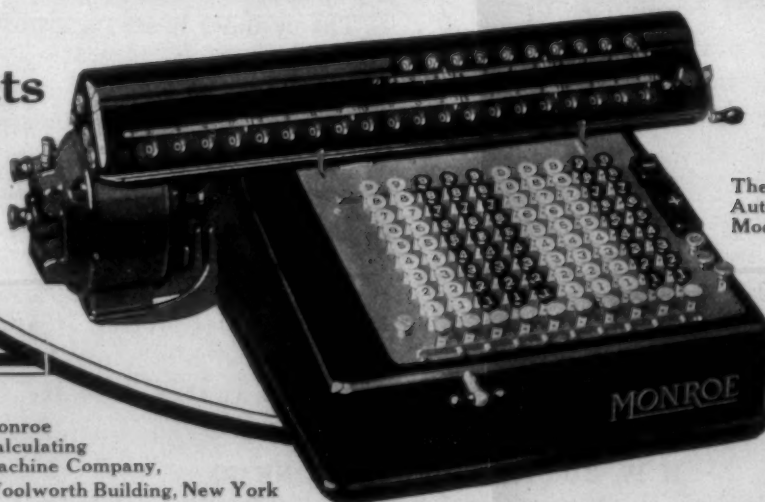
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# SOUTHERN TEXTILE BULLETIN

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CHARLOTTE, N. C., THURSDAY, MARCH 15, 1923.

NUMBER 3

## *Difference in Manufacturing Value and Market Value of Cotton Grades*

The following article was written by the late Charles A. Sweet:

In June, 1920, when raw cotton, Middling basis, had a market value of 40 cents per pound, difference between the highest and lowest merchantable grades was over 25 cents per pound, or in other words, Middling Fair was about five hundred points on Middling and Good ordinary was about two thousand points of Middling. So that with Middling Fair at 45 cents per pound, Good Ordinary was 20 cents per pound.

At this time the mills had not felt the pinch of deflation in prices and were still making large profits on the sale of goods of high quality, but Government requirements for the exclusive use of high grades of raw cotton were suspended and many mills could not resist the allurements of the purchase of their raw material at one-half, or less, of the prices prevalent for high grade cotton, so that bars were thrown down and cheap raw material contracted for future delivery many months ahead. Then came the slump in cotton prices and the wise ones, both manufacturers and cotton dealers, slumped off their losses on to the public by "hedging" processes through the exchanges, but the cotton mills had bought much low grade cotton for future delivery and the merchants had to make the deliveries, so when the market slumped to its low point the fight began and as good grade cotton went up low grade cotton went up faster, until now, January 1923, the difference quoted for deliveries on the exchanges, between the highest and lowest merchantable grades, is only about three hundred points and with Middling cotton at 27 cents, Middling Fair is less than 29 cents, and Good Ordinary 25 cents.

Manufacturing experience shows waste in the use of Middling Fair of about 8 per cent and Good Ordinary from 35 per cent upwards, according to the honesty of the cotton dealers, who can get send and trash for nothing and sell it to the manufacturers at cotton prices. What a chance!

It will thus be seen that high grade cotton has a manufacturing value of at least 25 per cent more than the low grade on the basis of

waste alone, but this is only one of the elements that enter into value differences between grades. There are many others.

The most important one is that goods of high quality cannot be made with low grade cotton. Another is that mill machinery deteriorates rapidly in using low grade cotton. Still another is that a greater and more even production is secured by using high grade cotton.

Skilled operatives will only work in mills using low grade cotton until they can get a job at another mill using high grades.

These are the most important but not all of the reasons why high grade cotton has a manufacturing value greatly in excess of low grades for purposes of spinning, weaving and converting. So that with 25 per cent more value on account of excessive waste alone, it is conservative to make the statement that present quoted grade price differences are purely artificial, being created by abnormal conditions in cost adjustments, which must in the natural course of events swing back to normal and the real value of middling fair cotton for the purposes of spinning and weaving is at least 50 per cent greater (all elements entering into the situation being taken into consideration) than Good Ordinary, the lowest of the nine United States Government grades, and that spots, tinges and stains were from three hundred to a thousand points off white cotton. Therefore, in actually purchasing Strict Good Ordinary and Good Ordinary cotton it could then be purchased for almost any price offered.

The statement, therefore, at the beginning of this article that there was in June, 1920, twenty-five hundred points difference between middling fair and good ordinary in conservative.

### **Why Low Grade Cotton Has Less Manufacturing Value Than High Grade.**

To begin with, unless a bale of low grade cotton has been exposed to the elements to the extent that more or less of the fibre in the bale has perished or rotted, it is mature, strong fibre, of superior "body" to that of the grades above Strict

Grade:—	Journal of Com. June 1, 1920 Cents	Journal of Com. Jan. 8, 1923 Cents
Middling Fair .....	3.75 on Mid	1.05 on Mid
Strict Good Middling .....	3.03 on Mid	.80 on Mid
Good Middling .....	2.38 on Mid	.55 on Mid
Strict Middling .....	1.25 on Mid	.31 on Mid
Middling .....	Basis	Basis
Strict Low Middling .....	2.90 off Mid	.37 off Mid
Low Middling .....	7.68 off Mid	.79 off Mid
*Strict Good Ordinary .....	11.15 off Mid	1.33 off Mid
*Good Ordinary .....	3.93 off Mid	1.93 off Mid
Yellow Tinged .....		
Strict Good Middling .....	1.19 off Mid	.40 on Mid
Good Middling .....	2.03 off Mid	.03 off Mid
Strict Middling .....	3.35 off Mid	.44 off Mid
*Middling .....	5.00 off Mid	1.23 off Mid
*Strict Low Middling .....	7.30 off Mid	1.75 off Mid
*Low Middling .....	10.60 off Mid	2.30 off Mid
Yellow Stained .....		
Good Middling .....	4.60 off Mid	.79 off Mid
*Strict Middling .....	6.38 off Mid	1.52 off Mid
*Middling .....	7.90 off Mid	2.10 off Mid
Blue Stained .....		
*Good Middling .....	5.85 off Mid	1.05 off Mid
*Strict Middling .....	7.23 off Mid	1.53 off Mid
*Middling .....	8.70 off Mid	2.03 off Mid

\*These grades not deliverable under future contracts.

Houston, Texas.  
March 17, 1920.

### **Difference Sheet No. 7.**

All cotton bought by us, unless otherwise stated, is to be New Crop Cotton, (cotton of 1919-20 season's growth.)

Our limits will be for basis Middling.

200 points up for Good Middling.  
100 points up for Strict Middling.  
Pass for Middling.

300 points down for Strict Low Middling.

800 points down for Low Middling.

1,300 points down for Strict Good Ordinary.

1,600 points down for Good Ordinary.

300 points off white for spots.  
600 points off white for Tinges.  
1000 points off white for Stains.

All gin cut, weather beaten, sandy, seedy, or in any way unmerchantable cotton will be rejected.

Until further notice under low middling will be accepted by us.

The above refers only to Upland cotton of seven-eighths to inch in

length of staple. Extra staple cotton, used only for the highest yarn counts, does not show such abnormal grade price differences, because manufacturers of fine yarns, knowing the effect of the use of low grade cotton upon the tensile strength of yarn, will not take the risk, but the demand for extra staple cotton is not as great at the present time as that for Upland seven-eighths to inch cotton, and so the price is not proportionately as high as it normally would be and as the users of extra staples use exclusively good grade cotton the low grade prices of extra staple cotton are effected only by the normal condition prevalent as to short cotton.

Statements of differences published in the New York Journal of Commerce, June 7th, 1920, and January 8th, 1923, are the differences for the use of the different exchanges. The difference grade statement marked No. 7, sent out from Houston, Texas, is a statement upon which cotton was actually bought from the pro-

(Continued on Page 8.)

# Overseer to Superintendent

Written exclusively for Southern Textile Bulletin by "Old Fixer", a man who has had long & varied experience in this work

## Imperfections in Cloth.

A knot is a very troublesome affair in the average line of fabrics. There are heavy textures in which the knot becomes hidden out of sight in the weave. And others in which the knot cannot be seen on the face of the goods because it is in one of the threads forming the back system. But there are numerous cloths in which the knot becomes a conspicuous factor when it is badly made. The weaver often assumes that the loose ends of the knot will weave so smoothly and evenly into the texture of the fabric during the process of weaving, that she often permits a poorly executed knot to pass. In fact, as she has a number of looms to watch, she can hardly be blamed for allowing any spliced thread which will pass through the dents of the reed to go unmolested. But if high grade cloth is in process of weaving, and a bad knot come along, the condition will be as shown at A in Figure 1. Instead of the knot itself and the loose ends getting covered with the filling, the knot will have a tendency to cause the filling to catch and make a hole. The splits in the reed cannot always drive the filling solidly home and a series of loops result for five or six filling ends. These uneven and open ends will not assume an orderly position in the texture. If the condition exists in a stripe, the stripe will be thrown out of alignment. The finishing processes of the goods will help a little to correct the trouble but will not entirely efface the imperfection. The speckers in the finishing room will try to remove the defect, sometimes by pulling out the entire knot. This brings on an even worse condition for just that much thread will be taken out, often to the extent of leaving a considerable hole.

A girl who is handy with a needle and thread may be able to partly cover the defect by inserting threads wherever defective ones are withdrawn. In this manner, the knot proper, and the threads of filling which have been looped about the knot, are replaced with straight threads fitted in a parallel order.

### When Kinky Filling Bothers.

Sometimes kinky filling or kinky warp will cause a great amount of extra work in the inspecting of the woven cloth. The warp yarns are more likely to kink than the filling yarns, because of the increased amount of twist in the former. This, however, is partly offset by the fact that the warp yarns are always sustained at a tension and do not have a chance to shrivel and curl into a kink. If a kink of ample proportions forms itself in a warp thread, we may get a result similar to that of a bad knot. If the filling is kinky there are of course a number of well known ways to remove the kinks, such as steaming of the yarns on the bobbins. Kinks are usually avoided in the spinning room by decreasing the number of turns per inch in the threads. But there are times when

an increased length of staple in the stock results in an increased twist before the overseer in charge has a chance to curtail the number of turns per inch. The spinning machinery is adjusted for the shorter staple, which demands more twist in order to produce a thread which the weavers can handle readily, as the longer staple absorbs the twist quicker and more effectively, often considerable hard twisted yarn is made before the trouble is noticed. The difficulty may not be observed until the weavers begin to complain again the filling kinking in the looms. Then steaming in a tank will soften the hard twisted to a considerable degree and perhaps entirely remove the trouble.

If the filling still kinks, as at B, Figure 2, a brush can be tacked inside the shuttle at the point C where the bristles will act as a brake on the filling thread as the latter passes

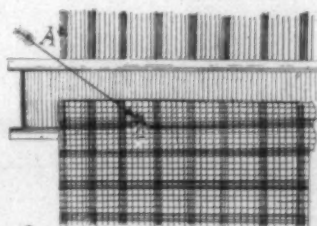


Fig. 1.

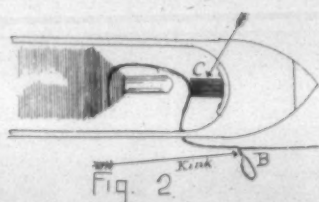


Fig. 2.

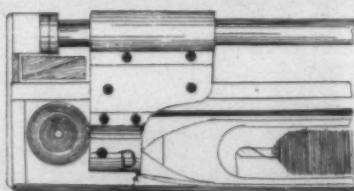


Fig. 3.

out of the shuttle through the eye to the shed. Sometimes a strip of cloth is doubled a few times and tacked in position instead of the brush.

### When Long Loops of Yarn are Drawn Into the Shed.

What is sometimes referred to as a long kink, is made when a stretch of filling thread catches on a split or rough place in the head of a rawhide picker as shown at D, Figure 3. This trouble is not due to increased twist in the filling yarn, for such a condition may arise even with soft spun yarn. Nor is the defect the result of a poor picker. The highest grades of raw hide loom pickers may receive an accidentally blow from the steel point of a shuttle, or get knocked with a tool while the fixer is at work, causing a nick which will catch the filling and hold

it just long enough to make a double end when the pull of the shuttle on the return trip through the shed drags the double end with it. This double end gets pounded into position by the reed so quickly that even the keen eye of the weaver does not observe it until several more picks have been driven home, thus weaving the double end, remove the latter and start over again, all of which means waste of yarn, loss of time and annoyance to the weaver. I have seen weavers let a loom run until many yards of cloth are woven with the loose filling drawn in at intervals because of a slight nick on the plug of the picker, and which nick could be removed in a few minutes by the use of a knife or a file.

When the goods with the double ends near the selvage reach the inspection room they can be pulled out with the point of a needle or other sharp instrument, but this takes time and patience. It may not always be the nick in the plug of the picker causing the trouble, as it may be due to using an old picker with rough edges around the plug, or with the rivet loose and protruding enough to catch the filling. In this case, a new picker should be substituted. If there is no nick on the picker head, and the plug itself is smooth, with its rivet tight, the catching of the filling may be due to a packing back of the picker being so badly worn that the head of the picker sinks deeply into it. The cut shows a new roll of cloth packing against which the picker head strikes without sinking in. But after a time the packing gets deeply grooved with the repeated back strokes of the picker head and allows the picker to sink in so far that the filling is given increased opportunity to catch. A new roll of packing will obviate this defect. The filling seldom catches on any of these places very regularly and that makes it all the more difficult for the detection and remedy. Often the filling will not catch more than once or twice in a yard of cloth, but that is enough to make a defect which requires correction.

A superintendent cannot watch out for these defects in cloth at the looms, for if he tried to do that he would have not time for any other department. Nor has he much time to spare in the inspection room where such defects are detected. Hence he must rely on the efficiency and observation of the men in charge to correct faults of this nature. A system of fines is used by some superintendents, so that whoever is responsible for bad knots, kinks in the filling, double and other forms of ends in the cloth, will have to pay for their lack of care and try to be more careful.

Other superintendents take another view of imperfections and instead of imposing fine for defects, they award cash prizes, vacation trips with pay and expenses paid or medals, for perfect goods. Both sys-

tems have their advantages and disadvantages. However, any system that will induce the employees to use more care in the spinning of yarns, weaving of cloth and finishing of the same, is sure to be beneficial to the mill.

## Few Failures in Chinese Cotton Trade; Mills Curtail.

Shanghai, China.—Local cotton trade observers and market reviewers are remarking on the cooperatively few failures this year preceding the Chinese New Year, Feb. 16. Since it is customary for Chinese firms to settle their debts before the beginning of the new year, there is embarrassment at this season. Often Shanghai sees the failure of a score of more or less well-founded native firms which have obligations too greatly above paper they can raise on it.

With the 16th six days off, but one native firm has become insolvent, this causing a loss of about \$100,000 to creditors. Holdings and stocks have for weeks been running low, these to be replenished on credit shortly after the settling-up period.

Ilbert's report says concerning the Shanghai market for cotton: "Native settlement is progressing normally, and no financial difficulties are expected of any magnitude."

"Serious misgivings are being daily expressed in the local press by up-country correspondents regarding the long continued drought and the consequent shortage of water, both for crops and for transportation. There is yet time for good rainfalls to redeem fully the crops, which mature in May, but in the meantime the probability of a food shortage is likely to affect the demand for imported goods during the spring."

It is customary for all local mills spinning yarn to close for five or seven days during the Chinese New Year holidays. This year, however, it is reported, that at least four native-owned mills which have a total of 260,000 spindles, will be closed for a month. Other mills are said to be shutting down for a longer period than is usual. For yarn, the Shanghai market has been quite steady during the last few days, with higher rates being asked by mill owners. Practically no business has transpired, however, because of the nearness of the New Year celebration.

J. Sprunt & Co., in reviewing the week here, and speaking of possible prices, say:

"Concerning the present statistical position in the cotton world, there appears nothing to sustain the expectation of lower rates prevailing on the cotton fiber for the time being unless the demand for it becomes almost extinct by reason of extreme curtailment in spindlage. Such a situation is hardly likely to occur even in the face of the gloomy aspect of affairs now in course of development in Europe and in China."—Daily News Record.



## WHAT WILL THE DYE DO ?

*The right dye*  
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will match a required shade perfectly. There is a "National" Dye for every standard shade. If fashion demands a new shade, "National" makes the new dye.

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Toronto

Philadelphia  
Providence  
San Francisco

**"NATIONAL" DYES**  
FOR TEXTILES



### Manufacturing Value Differences vs:

#### Market Price Differences in Cotton Grades.

(Continued From Page 5.)

ducers and it will be noted in this statement that:

Middling, and with the trash, motes, dust, sand and other extraneous matter eliminated, it has the highest manufacturing value. But this condition has always been impossible to attain by any processes that could be used under atmospheric conditions necessary for spinning and weaving and in the preparatory processes incident thereto.

The only possible way to accomplish any results is to control the atmospheric conditions preparatory to cleaning, and then, after cleaning, to restore to the cotton a condition under which the best results in spinning can be secured. This is the Wadsworth Process, which has been developed and is now in commercial operation, and completely protected by basic patent allowances. Wadsworth cotton is high grade cotton with all extraneous matter, including motes and immature and perished fibre, eliminated from the good cotton without any damage to the good fibre itself.

Middling Fair cotton is defined as cotton free from all extraneous matter, including motes, but it is early pickings and apt not to have the "body" which Strict Middling or Middling grade, for instance, will have. Therefore, Wadsworth cotton raised from lower grades to the highest grade, has greater manufacturing value than Middling Fair cotton ordinarily has.

It is claimed that the Wadsworth Process itself will do and is doing perfect work, but the mechanism used in the process can and will be improved in subsequent operating units to such an extent that any grade of cotton, however low, so long as it contains good fibre to start with, will be raised to the highest grade and will have the greatest possible manufacturing value according to character and staple.

This year, owing to price differences being so completely out of joint with manufacturing value differences, high grade Upland cotton is cheaper for manufacturing purposes by a considerable percentage than is low grade cotton, therefore, manufacturers can at this time safely go on to high grade cotton and obtain all the advantages of its use and be perfectly sure that when the time comes that high grade cotton will again be less easily obtainable than the low grades, they will never have to use low grade cotton again by reason of the Wadsworth Process.

#### Large Production From Cotton Mills.

Boston, Mass., March 8.—The Merchants National Bank of this city says in its monthly summary of the cotton industry:

The cotton manufacturing industry of this country continues very active. Statistics of spindle activity and of cotton consumption indicate that the mills are running at approximately 10 per cent above normal. During January domestic consumption of cotton, totaling 610,375 bales,

was larger than in any other month in the history of the industry, with the exception of March, 1916, and May, 1917, when the mills were in the midst of war time activity and running largely on heavy fabrics for military purposes. The mills consumer more cotton in January than in any month in the 1919-20 prosperity period.

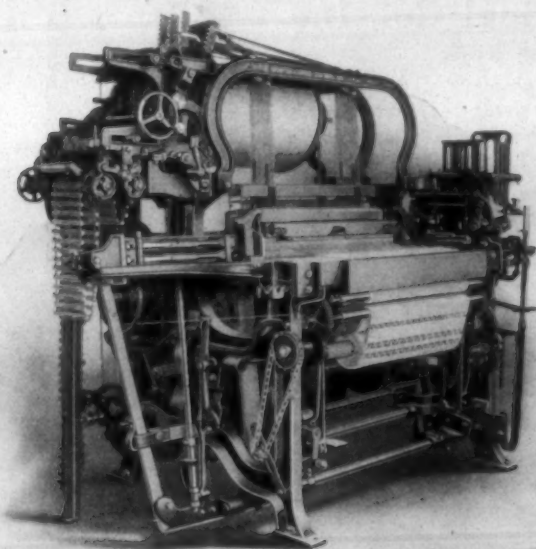
During January the mills of this country operated their spindles 9,266,000,000 spindle hours. Normal full time, single shiftrunning called for only 8,514,000,000 spindle hours. The total number of spindles operated at any time during the month was 25,240,000, this being the first time that they have aggregated more than 35,000,000. The total number of spindles in the country at the end of January, both active and idle, was 37,225,000. In other words, only 1,985,000 spindles were idle during the month. The spindle activity in January was equal to the normal single shift operation of about 38,750,000 spindles. This was a new high record for the industry.

The marked increase in general business activity and the sharp rise in the price of cotton have combined in recent weeks to produce a broad demand for cotton goods and have lifted prices of yarns and fabrics to new high levels. Many descriptions of goods have not risen as rapidly as the raw material, with the result that manufacturing margins have been reduced. A standard narrow print cloth, 27 inch wide, 64 x 60, 7.60 yards to the pound, has advanced since the close of January from 8 to 8 1-4c. per yard, but the

margin between the price of the raw material and the price of these goods per pound has been reduced more than 1 1-4c. A wide print cloth, 38 1-2 inches wide, 64 x 60, 5.35 yards, has risen from 11c to 11 5-8c. per yard, but the margin per pound has been reduced about 1c. A 36-inch brown sheeting, 56 x 60, 4 yards to the pound, has moved up from 12 3-4c. to 12 7-8c. per yard, but the margin has been reduced by 2 1-2c. per pound.

The rise in the price of the new material from about 26 1-2c. at the beginning of the year to well over 30c. at this writing is not surprising, in view of the sharp advances in many other basic commodities and the well recognized fact that supplies of cotton are lower than the trade has ever seen at this time of the year since the industry reached its present proportions. Stocks of cotton in the United States at the end of January totaled 6,236,000 bales this year, against 8,178,000 last year and the average of 9,672,000 in the last four years. Spinners stocks were 1,986,000 this year, against 1,668,000 last year, and an average of 1,628,000 in the past four years. Stocks in public and private storage, on plantations and in transit were only 4,250,000 this year, against 6,510,000 last year, and a average of 8,034,000 in the past four years.

Cotton supplies have been reduced to this low level with the European cotton mills curtailing heavily. In the 1920-21 season European consumption was only about 56 per cent of the pre-war average. In the 1921-22 season it was about 65 per cent.



## Automatic Terry Towel Loom

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Jacquard or  
Dobby Harness Motions

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## THE FUNCTIONS OF THE ENGINEER

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The character of available water supply, topography, climate and other factors may be singularly vital to one industry and relatively negligible for another.

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**J. E. SIRRINE & COMPANY**  
*Engineers*

GREENVILLE

SOUTH CAROLINA



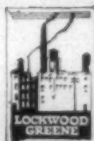
## The beauty of an industrial structure lies in its economy

In the Borough of Brooklyn there stands an industrial plant recently completed by Lockwood, Greene & Co. for a client. The building is a model of convenience, efficiency and economy of construction costs. Utility was the first consideration. Nothing was spent on superficial ornamentation. Yet in its external attractiveness the building is a monument to the architectural skill of its designers.

In industrial work the test of an architect is in the use he makes of existing structural features, combining good proportion with proper scale, without the introduction of expensive ornamentation. For the beauty of an industrial building lies in its economy.

Lockwood-Greene service unites the counsel of engineer, architect, manufacturer and financial man. It builds plants that are technically right, architecturally expressive of their use and economically sound. It builds not only for the needs of the present, but with due allowance for the needs of the future.

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Compagnie Lockwood Greene, Paris, France

### Tests for Knitted Fabrics.

(By William Davis, M. A.)

Large numbers of fabrics are being placed on the market at the present time which are extremely difficult to trace as to their origin, and a few points in testing those textures may be of interest. The knitted stitch can now be so effectively concealed by skillful manufacture and finishing that the ordinary looped appearance is by no means always apparent to the naked eye. If the surface is obscure the raised fibre may be singed off by applying a lighted match, after which it should be possible to distinguish the looped formation on face and back. The plain-knitted loop has, of course, a different appearance on the back to the face, the latter showing as a series of X-shaped forms, each V representing a complete stitch as worked on the machine needles, and these V's measured in the width, give the key to the gauge of the fabric. The back or wrong side of the fabric has a cross-wise aspect and gives the appearance of a series of semi-circles interlocking, one series facing upwards and the other series downwards; an upwards and a downward series taken together form what is known as a course of loops. The wrong side of the fabric is much the better side for scrutinizing the nature of the stitch, as any change or loop transfer can be most clearly noted there. These spaces are, in the vast majority of fabrics, only faintly visible, as the thread usually spreads itself into those spaces and gives the fabric a certain cover. In testing the fabric, therefore, it is first of all essential to get the material on its right side and at its right angle, for many plain-knitted fabrics appear quite different when turned round a right angle, as is often done in making-up into garments. This condition will be readily noted if the face loops have the V-shape turned on their sides, or on the wrong side of the fabric in place of a series of semi-circular loop portions appearing crosswise, these will dispose of themselves in a vertical direction.

Many forms of knitted fabrics, particularly those employed for underwear, can be readily distinguished by drawing them out in the direction of the width when they are found to possess considerable elasticity as compared with the length. A further test on the tensile testing machine will show that the strength in the width is considerably less than that of the length, but these elements cannot always be relied upon to give the expected results, because manufacture of knitted fabrics is becoming more and more skilled. The knitting operation is being continually modified to give results which rival the woven fabric in rigidity. One test which often reveals knitted origin is to concentrate on a small section of the fabric with pressure exerted by two thumbs, gradually pressing the fabric outwards; if this is repeated for a short time with persistence, it may be found that the part begins to lose its rigidity and becomes more or less curved. It is for this reason that the application of the knitted fabric to garments such as trousers

has not been very successful; the constant curving of the fabric at the knee during wear causes them to bulge permanently. The ultimate test of knitted origin is, of course, made by unravelling the fabric, when the raw loops of the course will be revealed. Unravelling is, however, in a large number of cases not possible owing to the close setting of the loops and the degree of felting which they have undergone. Unravelling should be done with the upper and lower edge in correct position, and the upper edge should be capable of being unraveled in many fabrics, whilst to attempt to do this at the lower selvege would not meet with success. When the thread and direction are correct it should be possible to draw out the ground yarn, an examination of which will show that the thread curves itself in the form the figure 8 in a very pronounced manner. If this thread be examined it will be found that it has acquired a considerable take-up in the knitting operation, the usual figure being in the region of 2 1/4 to 3—that is, to make a course of loops 1 ft. wide will require from 2 1/2 ft. to 3 ft. of thread according to the stitch and set.

The usual form of woven fabric is distinguishable by the two series of threads running at right angles to each other, and these two sets can usually be drawn out of the cloth, and in order to reduce the fabric both series require to be removed. If the loose end of the plain-knitted fabric is secured, the whole fabric may be reduced by pulling this one thread in succeeding courses. The curving of a thread removing it from a thorough analysis, however, because many knitted textures have a very similar superficial appearance to the woven and numerous fabrics, such as ripple cloths, imitations astrachan and fur effects, nap and velour fabrics are being produced with rapidity and success on modern knitting machinery. In these types it is well to seek the foundation of the fabric, which will in many cases be discovered to be of knitted origin. Finely fleeced fabrics are being made of mohair and wool yarns knitted on a circular frame. The fabric is afterwards subjected to a heavy milling in the stocks which causes the woolen element to felt considerably, leaving the mohair to straggle to the surface in the form of elegant-waved effects which have been much in vogue for garments in recent styles. —Textile Recorder of Manchester, England.

### Ecuador Textile Industry.

The manufacture of thread and textiles, especially from cotton, has been developing in Ecuador for many years, and at present there are 11 thread and textile mills in Ecuador, all within the Quito district, says Consul Goding, Quayaquil. One of these mills makes knit goods only. Their products are consumed in the country and also exported to Southern Colombia. The industry is capitalized at approximately 20,000,000 sucres, employs about 10,000 persons, operates 15,000 spindles and depends upon mountain streams for power.

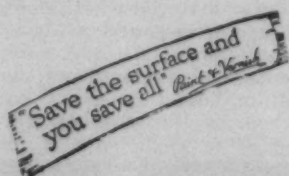


**Viewing the Nation's Wealth**  
Uncle Sam on an inspection tour of American properties looks into one of his knitting mills.



**The Dutch Boy Painter:**

*"You'll have neither quantity nor quality production in your mills without efficient lighting. And your workers will not get all the benefit of light unless you cover walls and ceilings with the right paint."*



## Lost Labor that your time-clock doesn't show

In the morning one of your employees comes to his job alert, active, ready to do a full day's work. By afternoon he is moving about sluggishly, his desire to work apparently gone.

In a great many instances such an employee is the victim of bad lighting conditions. Badly painted walls and ceilings refuse to reflect sufficient light. He is working either in glaring light or deep shadows. He uses twice as much energy on every operation because he can't see clearly and easily.

Before the day is over he is tired physically and mentally. His output decreases in quantity and quality. Your time-clock shows he is in the mill. But it doesn't tell how much of his time and labor is lost through inability to see properly.

You can remedy this condition by painting walls and ceilings with Dutch Boy White-Lead and Dutch Boy Flatting Oil. This combination gives a white, flat paint that distributes more light and eliminates spots of glaring brightness and dark shadows. With such a paint your men can work steadily, rapidly, efficiently at their tasks throughout the day. The results are better work more cheerfully done and, consequently, increased production.

Because Dutch Boy flat paint becomes so much a part of the surface, it doesn't chip or scale. Its cost is no more than that of other paints, and less is required to cover a given area. As it gives a smooth, hard surface, walls covered with it can easily be cleaned by washing with soap and water.

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# Dutch Boy White-Lead

# Youlten Cotton Opener

The Textile Recorder, of Manchester, Eng., recently awarded a number of prizes for the best articles submitted in a Technical Description Contest. The prize winning article, by W. J. Ellison, is given below:

This machine is a clean break-away from prevailing practice in the textile trade. It has attracted considerable attention.

The main feature is a rotor F, which is seen at Figs. 1 and 2, and its speed is about 2,000 revolutions per minute. This rotor is mounted inside a cylindrical rotating cage C, the revolution of which is comparatively slow. Mounted between bowls and with a periphery drive, the cage is without mandrel, and is fitted with sectional grids to suit the material being worked. A revolving brush E has contact with the underside of the cage. These three revolving units are covered by a cas-

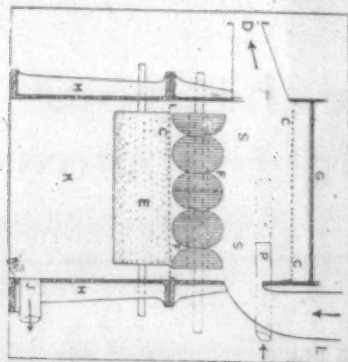


Figure 1.

ing G. There are two inlets to the cage through the casing and one outlet. P is one inlet, and it introduces a blast of air from a Sturtevant fan generating 6 in. water gauge. The point of air discharge into the cage may be varied by extension pieces on the blast pipe; these are shown in dotted outline. I is the other inlet, and is the mouth of a cotton hopper or trunk fed from a bale breaker.

The outlet from the cage is D, connected to the outside of a pair of condenser cages. There is, in addition, an outlet from the machine casing itself, indicated at H. J, which leads to the base of the condenser fan side flues.

The rotor is the distinctive characteristic of the machine, and calls for a detailed description. Threaded on a shaft are mild steel stampings with projecting blades. Each stamping has one blade. The keyways on the shaft are slotted spirally, with the result that the assembled rotor assumes a general form as indicated in Fig. 1, the blade tips forming outlines in the shape of double scrolls or worms. Beginning in the centre, these outlines describe scrolls of one hand to one side and of the opposite hand to the other side.

Referring now to the enlarged view in Figure 3, it will be seen that adjacent stampings have their blades alternated. The projections are posted to each scroll in turn. This has the effect of leaving a space between each adjacent blade equal to the thickness of a stamping, or 1-8 in. in a rotor suitable for

cotton and 3-16 in. when constructed for wool. For heavy wools in a matter condition a rotor has been designed in which the blades have been replaced by beaters of a much heavier type, but which, in their assembly, still retain the scroll disposition. In the centre of the cotton rotor, and on each scroll, is a special stamping of greater thickness than the remainder. This provision is partly a mechanical convenience in cutting the spiral keyways and partly to avoid a potential gathering point for the material at the junction of the two scrolls. The faces of the two central stampings are chamfered off near the tips. The rotor is approximately 13 in. across blade tips which are diametrically opposite, while the clearance from the cage at the nearest point of approach is normally 15-16 in. This distance may be increased by the insertion of packing plates between the framing and the rotor pedestals.

The cotton is fed from the bale breaker to the machine down the trunk or hopper I. Feeding is partly by gravity and partly by the induc-

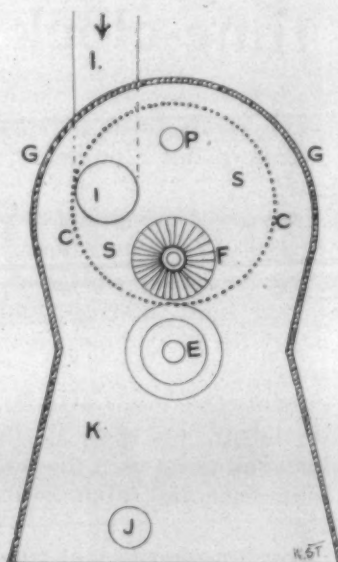


Figure 2.

tion effect of the air current passing out of the blast pipe P. Immediately the cotton enters the rotating cage it is brought under two influences:—

- (1) The rotor.
- (2) The current of air, the general direction of which is from P to D.

In order to determine the resultant action let us assume that each of the foregoing is absent in turn. If the rotor were eliminated the cotton would be discharged into the rotary sieve, and the heavier portions would sink to the base and accumulate there while the lighter portions would be blown direct through D to the condenser cages.

In the absence of the air blast the cotton would fall tangentially towards the rotor blade tips (see Fig. 2), and when the material touches the rotor three main forces would be in operation on the cotton: Gravity, acting vertically downward; propulsion by the blade tips in a horizontal direction towards the

perforated cage; and thrust—approximately along the length of the rotor shaft—by the blade sides due to their scroll formation. This thrust will always be towards the centre.

The resultant motion would be one obliquely downwards and towards the centre of the cage. When the material reached its lowest point, the first and second forces would become inoperative owing to the proximity of the cage, and the material will simply be carried underneath by the rotor and be scraped obliquely along the grid due to thrust. It will then be thrown upwards into the main portion of the cage by the propulsion of the blade tips, to sink again as gravity gains the ascendancy.

The opening action on the cotton with both rotor and air blast in operation may be determined by a simple process of construction. Very light portions will be blown directly through D to the condenser cages, while medium portions will behave precisely as outlined for the resultant motion above, except that the presence of the air blast will give the material greater buoyancy, and thus tend to neutralize the effect of gravity and keep the cotton on the upper part of the rotor's periphery.

It must be realized that the rotor blade tips are moving at an excep-

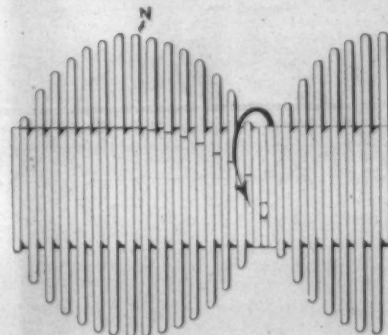


Figure 3.

tionally high surface speed (approximately 80 miles per hour; material is, therefore thrown at great speed obliquely upwards against the cage along which it travels for some distance before its course is diverted. When its kinetic energy is spent the cotton will fall again on to the rotor by gravity. This process is repeated until it is light enough to be carried away through D to the condenser cages. The oblique path described is opposite in the case of material on each side of the rotor centre, and a maze of crossing paths is, therefore, generated in the form of intersetting loops. Fig. 4 illustrates this.

Heavy portions have more intimate contact with the rotor, and are thrown against the front of the cage and passed underneath until opened enough to be considered as medium and eventually as light. In this connection the special construction of the rotor centre comes under consideration. The two broad central stampings, together with the cup formation where the two opposite hands of scroll converge (see Fig. 2), cause the heavy material to re-

ceive something approaching an ordinary beating.

Elongation of the blast pipe (see Fig. 1), brings about a longer treatment, as the material comes later under the buoyancy effect of the air blast.

The extraction of impurities is brought about on principles which are in advance of those appertaining in ordinary opening machinery. It is obvious that, by the treatment described, the impurities are freed from the material. They are then passed through the cage partly by the scraping effect due to the cotton's oblique contact with the cage. This current is generated by the rotor's revolution, and also by the outlet J at the base of the machine. Much of the fine dust is thereby taken to the condenser fan, while the heavier impurities lodge in the base K of the casing. The blast pipe current does not expel air from the cage, because to do this it would have to build up a pressure which would hinder the cotton's passage to the condenser cages.

There must necessarily be some fine impurity passed forward with the opened material, but, as this is already in a separated form, it will readily be absorbed through the apertures in the cakes of the condenser.

The brush E, which has contact with the rotating cage, ensures a continually clean grid surface.

The machine, as a cotton opener, undoubtedly appears to promise the considerable measure of adoption it

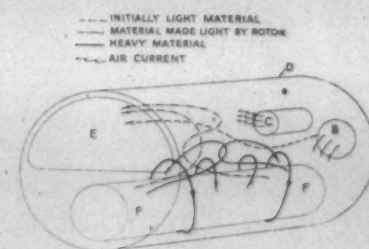


Figure 4.

has already earned in the wool trade. Without question, its great asset is the elimination of ordinary beating and the substitution of innumerable light taps to a material which is perfectly free to keep out of intimate contact with the rotor. This rotor is not a beater, because of its high speed in conjunction with an almost complete continuity of blade tip outline.

The Youlten is, like machines of the vertical conical beater type, a discriminating opener, affording longer treatment to that portion of the material which demands it. As such it is sound in principle, but contributes nothing towards one of the achievements of the feed roller and beater type, viz., equality of counts in the scutcher lap. Under present arrangements of blowing-room machinery, and until another method can be perfected of detaching from a nip, a beater is essential to the production of uniform laps. The Youlten opener can, therefore, only

(Continued on Page 24.)



# MATHIESON Chemicals

## Leadership

**T**HE MATHIESON COMPANY has become a dominant factor in the Chemical Industry, due to the initiative of its Engineers, and the alertness and efficiency of its Sales Department. The quick response to the needs and convenience of our customers in the Textile Industry is reflected in the offering of Liquid Chlorine in exact net weights in the customary steel cylinders. All Mathieson Liquid Chlorine containers now hold uniform weights of 105, 150 and 2,000 lbs.

This innovation is in line with other distinctive features of the service that has made us unquestionably the leaders in this field—the Mathieson Multiple-Unit Tank Car, the Mathieson Chlorine Valve, and the Mathieson plan of cleaning, drying, and inspecting all cylinder equipment before refilling.

The Mathieson Sales Organization, in co-operation with its Engineers, has devised a plan and worked out formulas for making up bleach liquors from Liquid Chlorine which will be of interest to all Executives in the Textile Industry.

*This has been put into booklet form, and in it there are also described other "Eagle Thistle" Products—Caustic Soda, Soda Ash, Bicarbonate of Soda, Sesquicarbonate of Soda and Bleaching Powder. It will gladly be sent upon request.*

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## Practical Discussions

### Answer to Alabama.

Editor:

In reply to the question of thick and thin places in slubber roving would say that I think the settings are all right, but I would like for him to say what H. R. he is making and what draft he has on his drawing, back and front, also on cards and what weight lapper and card sliver. He must be mistaken about his back roller. If he is willing to give these items I think I can get him out of his trouble. I would also like to know how he mixes his waste. Would also like to know the settings on drawings.

Trouble Finder.

### Answer to Alabama.

Editor:

I have had a lot of experience along this line with thick and thin places in the roving. As there are several causes for this trouble, I will not try to mention them all but will try to give you just a few of the most and the worst causes for thick and thin places in roving. First, I will go to the cards and see that the cards are properly ground and set as you will readily see that a card will not run as long with a heavy sheeting of lap as it will with a light lap. Therefore it takes more and often grinding to keep the cards in shape.

I think your drawing sliver is too heavy. If you will change your drawing sliver to a 75 grain sliver and change the weights on your drawing. Say, take the 18 pound weight and put on the second roller and the 14 pound weights on the third and back roller and see that your drawing rollers are properly set and keep clean and coiled.

I think your weights are too light on your slubber. If you will change your weights and put on a 20 pound weight on your front roller and an 18 pound weight on the second and back roller, and as I have mentioned above, change the drawing sliver from a 80 grain sliver to a 75 grain sliver and then heavy up on your slubber to make the hank rove that you want and then you will see the thick and thin places disappear.

I have taken off the weights and put on springs to get my weight heavy enough. If you had given the hank roving that you was making and the twist you were putting in your roving I could have told whether it was the twist or whether you were drawing the roving too much. A short draft is far better on heavy roving than a long draft.

E. M. D.

### New Cord Fabric Process.

Akron, O.—Changes in the weaving of cord tire fabric are forecast

by the successful use of a new method of building tires with fewer cross threads, successfully employed by the General Tire & Rubber Co., during the past year and just revealed by statements made by company officials.

The statements regarding the new smoother tire, according to General method of fabric weaving, details of which are not as yet available, were made in connection with a discussion of the process of using latex or liquid rubber in the manufacture of tires instead of the present process of forcing the rubber into the fabric by means of calenders.

The General Tire company is hesitant about making any statements regarding details of its process for obvious reasons—although the process of a similar process by other



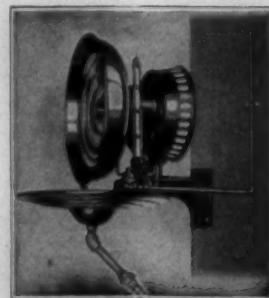
Hart Mills Concert Band, Tarboro, N. C.

## Bahnson—the Superior Humidifier

In selecting your Humidifying System remember that Durability, Satisfaction and Service are absolutely essential. It is because it excels in these qualities that BAHNSON Humidifiers have won the title "SUPERIOR."

Examine the BAHNSON Humidifier, note its simplicity and ease of operation; the facility with which you can set it to take care of conditions in your mill.

Note the quality of materials and the expert workmanship of its build—then you will understand why our customers say "We expect to stick to the Bahnson!"



When once set, Bahnson Automatic controls operate with constant accuracy.

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Humidification Engineers

General Office  
and Factory  
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rubber companies and therefore do not have much faith in the proposed use of latex as far as tire building is concerned it is admitted here that the process recently announced opens the way for a wide variety of things being made from rubber which have been impossible until the process of breaking down the latex had been discovered.

#### Cone Winding Machine for Hosiery May Be Big Saving.

Washington.—A manufacturer of winding machinery has consented to build for the Bureau of Standards a machine which will allow the winding of cones of different sizes and tapers, in connection with the bureau's project for the standardization of cones for use in hosiery manufacture.

It is expected that this investigation will result in the saving of an enormous amount of time and energy, now required in the repeated adjustments of hosiery knitting machines.

#### U. S. Dye Makers in Strong Position.

Washington.—If January and February imports of coal tar dyes may be accepted as fairly reflecting the volume of such business, Government experts here declare that domestic producers are in a better position than at any period since the industry secured a foothold in the United States.

It is recognized, however, that low imports in these months may be attributed in part to reluctance of importers to bring in large stocks because of uncertainty over customs regulations and that now that these regulations are known there may be an increase.

Conditions in Germany do not indicate heavy exports from that country for some time, it is declared, whatever the desire may be. The plants in the Ruhr are seriously crippled by lack of coal. Now that the French have decreed that imports by at least one large chemical plant of coal from England must be discontinued, further restriction of output may be looked for, it is believed here. Since the war, the chemical plants using coal tar have had insufficient supply of raw material from their own country and have been buying from England while coal produced at their doors has been shipped for reparations payments.

In January, and again in February, imports of coal tar dyes at New York have been a little less than 200,000 pounds monthly, or at the rate of 2,400,000 pounds annually, approximately. This is less than such imports even during the embargo period of the Dye and Chemical Control. During 1920, under this control, 3,402,582 pounds of coal tar dyes were imported. In 1921 the imports were 4,252,911 pounds. In the fiscal year 1914, imports totaled 45,950,895 pounds, but that was before the domestic industry fairly started.

It is evident, however, that German exports cannot increase very largely under present conditions, and Switzerland is suffering from lack of coal tar, it is said here.

#### G. G. Slaughter Now President of Charlotte Leather Belting Co.

G. G. Slaughter, of Greenville, S. C., one of the best known mill supply men in the South, who has been president of the G. G. Slaughter Co., has been elected president of the Charlotte Leather Belting Co., of Charlotte, and has assumed the management of that company.

#### More Activity in Combed Yarns.

New Bedford.—Frederick B. Macy & Co. say in their weekly yarn letter:

"Cotton yarn markets have experienced an active inquiry during the past week and quite a good volume of business has been put through mostly in small lots. Prices throughout the list are very strong indeed and Southern carded yarns are 1c to 2c higher than last week, the rise having caused some hesitation among buyers and slowed up trading to a considerable degree.

"Combed yarns have remained virtually at the same levels as last week, but spinners are trying hard to push quotations upward in accordance with raw cotton values, and so the market has a very strong undertone. There was perhaps more activity in combed than in carded numbers during the week, due partly to their sluggishness in moving to higher prices.

"Buyers are growing apprehensive of the wage situation in the East and are laying down their orders

now lest a delay should mean paying higher figures or having their orders turned down altogether because of interrupted production. Southern combed yarns are still available at a wide discount from the Eastern price. Transportation difficulties make it impossible to keep deliveries regular and help to offset the price differential.

"Weavers, braiders, narrow fabric mills, and thread manufacturers have all been in the market this week buying cautiously. Knitted yarns have been relatively slow and insulating yarns are also inactive for the moment. Tire yarns are not yet generally in demand though one or two large lot sales have been reported. Most of the business, however, is going to the South.

#### Highland Park Teams Made Fine Impression.

A communication has recently come from L. P. Hollis, of Greenville, S. C., president of the Southern Textile Athletic Association, to C. W. Johnston, president of the Highland Park Manufacturing company, paying tribute to the teams that represented the company in the tournament recently held.

The letter follows:

Greenville, S. C.

March 5, 1923

Mr. C. W. Johnston,  
Charlotte, N. C.

Dear Sir:

"Two of your teams from the Highland Park mills were in Green-

ville competing in our annual basketball tournament, and I thought you would be interested to know what a fine impression they made in Greenville. They were excellent players and won two of the cups offered, but their behavior was ideal, and their looks and demeanor were the cause of many complimentary remarks.

"Yours very truly,

"L. P. Hollis, Pres."

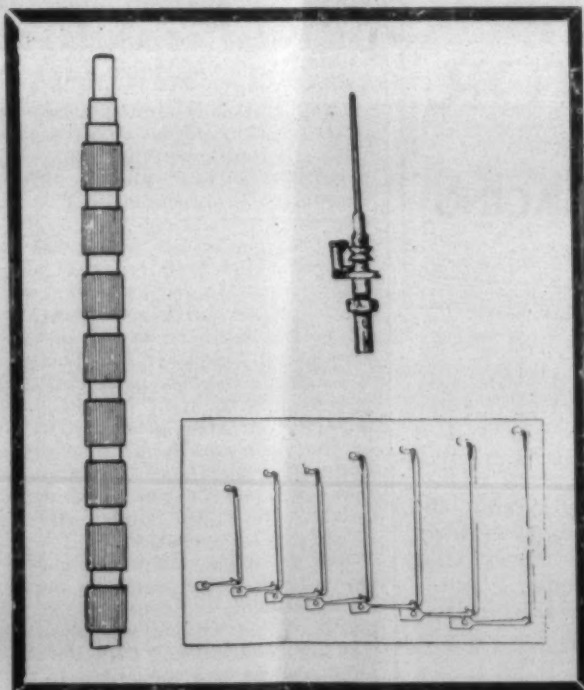
#### Doubles Cotton Acreage.

Washington.—Australia has more than doubled her cotton acreage for the 1922-23 crop as compared with the 1921-22 acreage. A cablegram from the International Institute of Agriculture at Rome just received by the Department of Agriculture places the acreage at 40,000 acres.

#### Knit Goods Active.

Cohoes, N. Y.—Conditions in this knit goods district have reached a point where manufacturers are unanimously agreed that the industry is all tuned up for a record run of prosperity. Mills are operating practically at full capacity. A few plants have started night work, and it is said others would be running 24 hours a day were it not for the scarcity of labor. This deficiency, which has not yet reached serious proportions, is the only dark spot in the situation, according to manufacturers, who report there is plenty of business available and that raw materials show no weakening signs.

## DO IT BETTER



Greater convenience, higher efficiency and better service individualizes the output of textile mills equipped with parts manufactured by the

### Southern Spindle & Flyer Co.

These parts consist, among others, of Steel Rolls, Flyer Pressers, Card Room Spindles, Whirls, Spindle Steps, Lifting Rods, Collars, Bushings and Top Rolls.

We are also prepared to overhaul Fly and Spinning Frames, Twisters, Spoolers, etc., and repair Steel Rolls, Spindles and Flyers, Picker Lap Pins, Cylinder Heads, Doffer Comb Bars.

## Southern Spinnle & Flyer Company, Inc.

Manufacturers, Overhauled and Repairers of Cotton Mill Machinery

CHARLOTTE, N. C.

W. H. MONTY, Pres. & Treas.

W. H. HUTCHINS, V. Pres. & Sec.



## VOGEL

PATENTED

### Frost Proof Closets

Over 300,000 giving satisfaction. Save water; Require no pit; Simple in the extreme. The most durable water closet made. In service winter and summer.

- Enamelled roll flushing rim bowls.
- Heavy brass valves.
- Strong hardwood seat.
- Heavy rivited tank.
- Malleable seat castings will not break.

**SOLD BY JOBBERS EVERYWHERE**

**Joseph A. Vogel Co.    Wilmington, Del.**

#### Making Cotton Transparent.

A Swiss process for making cotton transparent has been patented in this country and assigned in part to a resident of Delham, Mass. Certain transparent effects can be imparted to cotton by successive treatments of the cotton with reagents of different types and characteristics, having different actions upon cotton, and of which strong sulphuric acid and concentrated soda lye may be taken as examples of each type. To produce such effects the cotton is either treated first with strong sulphuric acid for a few seconds followed by a treatment with strong soda lye or the cotton is treated first with strong soda lye and then with strong sulphuric acid for a few seconds. The concentration of the sulphuric acid is over 50% Be. Transparent effects by these processes can be improved to some extent by preceding the initial step in each process with a treatment of the cotton with a reagent of the opposite type from the reagent used in the initial step of the process, that is to say, the first process consisting of a treatment with sulphuric acid followed by a treatment with soda lye is improved by preceding the treatment with sulphuric acid by a treatment with strong soda lye. Also the process consisting of a treatment with soda lye followed by treatment with strong sulphuric acid is improved by preceding the soda lye treatment with treatment with strong sulphuric acid.

In both processes the initial treatment with strong sulphuric acid or strong soda lye appears to operate to prepare the material and place it in a condition more favorable to the successful operation of the subsequent treatments.

It has been considered impossible to obtain any reaction or effect upon cotton by successive treatments with reagents of the same general type, that is, by successive treatments with reagents of the same type, general type but under different conditions of operation. The conditions of operation under which the cotton is treated with reagents of one type may be varied in several ways, for example, successive treatments of cotton with acids of different strengths followed by treatment with strong soda lye produced transparent effects upon cotton vastly superior to those produced by any of the processes heretofore known. Different reagents of the same type may be used in each of the successive steps but under different conditions of operation.

Instead of varying the strength of the reagent to be used in a particular treatment, the temperature may be controlled with or without variation in its strength. In general the effectiveness of a reagent is in large measure dependent upon its temperature. It is therefore possible to obtain desirable transparent effects by treatment with a reagent of one type at one temperature, treatment with the same reagent or a reagent of the same type at another temperature followed by treatment with a reagent of a different type. The conditions of operation may be varied in other ways.

The cotton fabric is dipped in sul-

phuric acid having a gravity below 50% Be. The exact strength of this acid may be varied within reasonable limits. The cotton is left in this acid bath for approximately two minutes, after which it is removed, washed thoroughly and dried. The cotton is then dipped into a second sulphuric acid bath for 4 or 5 seconds, the strength of this second bath being preferably 54° Be. After the cotton has remained in this second acid bath for approximately 5 seconds, it is removed and washed, and then mercerized in the usual way in a bath of soda lye above 15° Be. During the process of shrinkage of the material is prevented as much as possible so that the material is in a stretched condition.

The superiority of the transparent effects produced upon the cotton material treated in accordance with the present invention may be readily observed by comparison with fabrics treated according to previous processes. It is claimed that the fabrics treated according to the present invention are far more transparent, more even, and more silk like.

Among the reagents having an action upon cotton similar to sulphuric acid, and which may be used with this process are phosphoric acid, hydrochloric acid, nitric acid or an ymixtures thereof including mixtures with sulphuric acid, and also zinc chloride solution and ammoniacal solutions of copper hydrate. All of these reagents may be regarded as parchmentizing reagents.

#### Indian Jute Weaving Mills.

There are now about 200 looms in operation in Calcutta on jute cloth used for cotton hales. Assistant Trade Commissioner C. B. Spoffard, Calcutta, reports. The mills operating these looms are American owned and were initiated as an experiment. It remains a question as to whether the new tariff on imports of this cloth into the United States will permit the expansion of this line of manufacture in India.

#### Investigate Cotton Marketing.

Washington.—An investigation of the cost of marketing of cotton is about to be undertaken by the bureau of markets of the Department of Agriculture. The purpose is to get an approximation of the percentage of cost to the consumer that each agency takes from the time the cotton is sold by the producer until it reaches the hands of the consumer. Representatives of the bureau of markets will be in the field within a week to begin the inquiry, which will extend over at least several months, so that the result of the investigation is not likely to be made public before midsummer.

Similar investigations have been conducted by the bureau in other lines, chiefly up to this time in foodstuffs. For instance, a similar investigation in the cost of marketing potatoes showed that in the final cost to the consumer the retailer's margin was 21 per cent, the jobber's 8 per cent, the wholesaler's 5 per cent, the freight charges 17 per cent, the county dealer's margin 4 per



## ALLIGATOR

TRADE MARK REGISTERED U. S. PAT. OFFICE

### Scientific STEEL BELT LACING

### There is Science in Belt Lacing

Alligator teeth penetrate lengthwise of the belt, leaving the long burden-bearing fibers intact. Each tooth clinches down over its group of fibers, compressing them so firmly that there is no internal friction and wear at the belt end. The sectional steel rocker hinge pin is the only metal pin that avoids wear to the joint. Keep these vital features in mind when you buy belt lacing, for the cost of any lacing is nothing as compared to the cost of the belt on which it serves.

Sold at Wholesale and Retail  
the World Over

**FLEXIBLE STEEL LACING  
COMPANY**

4699 Lexington Street, Chicago  
In England at 135 Finsbury Pavement,  
London, E. C. 2





cent, and the grower's selling price 48 per cent.

Similar percentages of the total cost to consumers of cotton goods may be disclosed by the inquiry now being started.

The cotton investigation will be limited to tracing through to the consumer a few staple cotton articles, probably certain sheetings and staple print cloths. The inquiry will be directed along five phases as follows:

**Retailer**—The price of the finished cloth to the consumer; the price to the retailer, the price to the wholesaler, the price to the cloth merchant (manufacturer's selling price), the manufacturer's price for raw cotton, and the price paid the grower.

**Manufacturer**—The manufacturer's selling price, his labor cost, other manufacturing expenses, profit, waste in manufacturing, price paid for raw material, price received by grower.

**New York spot cotton**—Prices paid by manufacturers, the broker (his definite percentage), cotton merchant buying price, country buyer, price paid grower.

**Cotton merchant**—Selling price, hedging, insurance, storage, assembling, price paid grower.

**Grower**—Price received by grower, analysis of farm expenses.

In the first phase, relating to the retail price, figures obtained by the bureau of labor statistics will be taken, but they will be checked up, probably by visits of the marketing bureau's representatives to the fac-

ories where the cloths quoted are made.

As indicated by the bureau, the object of this, as well as similar investigations relating to other commodities, is to improve the efficiency of the individual business, on the theory that such improvement of efficiency will eliminate waste, lower costs, and benefit everybody concerned, from the grower to the consumer.

#### Southern Educational Exposition.

The Southern Educational Exposition, which will be held in Textile Hall, at Greenville, S. C., June 11th to 16th, will have for one of its main objects the improvement of mill schools.

Mr. William Banks, supervisor of Mill Schools, has endorsed the plan. He will appoint a committee of prominent mill school workers in the state to co-operate with the committee of Greenville men towards developing a large attendance.

There are in the state of South Carolina hundreds of intelligent and ambitious men and women engaged in the teaching of children and young men and women in the mill villages. In the last few years tremendous strides have been noted in a development of these schools. Some of them are as far advanced in equipment and class room work as any high school in the country.

The residents of the cotton mills have ably supported the efforts of their community workers and school teachers, with the result that hundreds of thousands dollars have been

spent in building better school and equipping them in the most improved manner. The present prosperity of the cotton mills in the South has lead Textile Hall management to believe that the expenditure in the mill schools alone during 1923 and 1924 will run up into the millions, and that those who make display of building materials and school equipment of all kinds will reap an ample reward for any expenditure of time and trouble in taking space at the Southern Educational Exposition.

#### Decline of the Persian Silk Industry.

Persia's formerly flourishing silk industry has been virtually annihilated as a result of the World War and the collapse of Russia, according to dispatches to the Department of Commerce from Consul Gottlieb, Teheran. During the fiscal year 1913-1914, Persia imported 2,382 batmans (batman equals 6.49 pounds) of silkworm eggs, mainly from France, Italy, and Turkey. Such egg imports came via the Caucasian route which because of troubled political conditions cannot be used now and the long, intensely hot southern route via Bombay and the Persian Gulf ports or Bagdad has been found impossible, as the length of the journey and the high temperature spoiled the eggs. As a consequence imports of silkworm eggs fell to a negligible quantity (41 batmans) in 1920-21, and Persia's silk cocoon exports declined from 334,425 batmans in 1913-14 to 146 batmans in 1920-21.

Bradshaw Robertson Cotton Co., Greensboro, N. C.

Southern Textile Bulletin, Charlotte, N. C.

Gentlemen:

Referring to your letter of the 2nd. The cotton acreage for 1923 will be somewhat increased, how much we cannot tell at this time.

The farm laborers have been leaving the farms, especially in Southern Georgia and South Carolina. There has been very little plowing in Southern Georgia, but quite a good deal in South Carolina.

We have had a very mild winter and the farmers have been taking advantage of the good weather and doing their plowing in the Carolinas.

Yours very truly,  
BRDshaw-ROBERTSON COT-  
TON CO.

#### Improved Dobby Chain

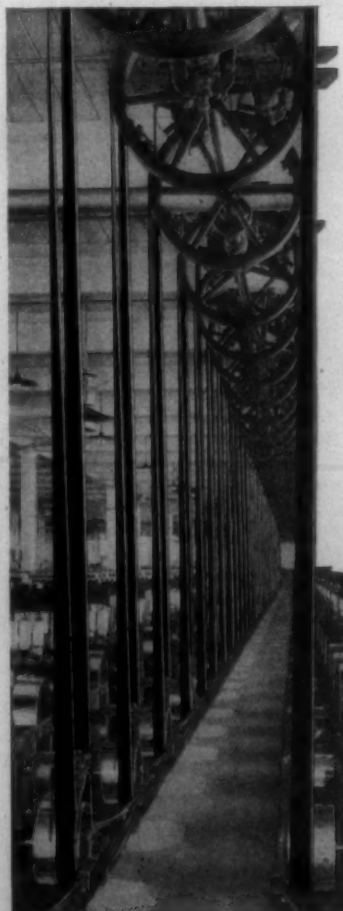


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Rice Dobby Chain Co.  
Millbury, Mass.

Send Us Your Order To-day

## YOUR BELTING REQUIREMENTS



In this drive, belting performance counts high in actual production. Spar Oak belting reduces slippage, maintaining the required speed of the machine without increasing the load at the power plant because the pulley side of the belt is live elastic

#### SPARTAN LEATHER

There is a Graton & Knight belt that will give you maximum power per square inch of pulley surface, a belt that will cling to the job year in and year out, but there is no such thing as a universal belt. Each particular drive presents its own problem. The Graton & Knight engineering department is at your service at all times. No obligation involved when you call upon it to answer your belting questions.

Graton & Knight belts are the result of many years' research. The hide is tanned for the exact kind of belting it is to become, and all the way through the various processes of manufacturing, the ultimate object is under consideration.



The Graton & Knight Manufacturing Co.

Oak Leather Tanners, Makers of Leather Belting and Leather Products

Worcester, Mass., U. S. A.

# SOUTHERN TEXTILE BULLETIN

Member of Audit Bureau of Circulations.

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**CLARK PUBLISHING COMPANY**  
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DAVID CLARK.....Managing Editor  
D. H. HILL, JR.....Associate Editor  
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Address all communications and make all drafts, checks and money orders payable to Clark Publishing Company, Charlotte, N. C.

**THURSDAY, MARCH 15, 1923.**

## Failed to Pass.

Congress has adjourned without having passed the proposed resolution to Federal control of child labor.

Cotton manufacturers, probably, do not know how close the resolution came to being railroaded through Congress as was the expectation of its backers as late as three weeks ago.

We would like to tell the story but our columns are read by our enemies as well as our friends, and we will therefore only say that the resolution did not pass and that Congress does not meet again until next December.

Between now and December much publicity work must be done in order to acquaint the members of the new Congress and prominent citizens of all the States with the fact that the child labor laws of the Southern States are adequate and are being enforced.

Men and women who study the facts will learn that there is no need of Federal control and will realize that the real pressure back of the movement comes from desire of the officials, of the Children's Bureau of the Department of Labor, to acquire power, patronage and increased salaries.

Rights which the sovereign States reserved to themselves when they united, are to be taken from them and placed in the hands of a bunch of old maids who through political influence, secured jobs in Washington.

Students of political economy state that this Government of ours can not long exist after it centralizes power and wipes out the rights of

the sovereign States and this proposed taking from the States their right to regulate the labor of its citizens will be a long step in the wrong direction.

## Meeting of Operating Executives of Georgia.

The Operating Executives of Georgia, which is an organization composed of the superintendents and overseers of the Georgia cotton mills was held at the Georgia School of Technology at Atlanta, Ga., on Tuesday of this week.

The attendance was very large and compared very favorably with that of the sectional meetings of the Southern Textile Association.

R. W. Jennings of West Point, general chairman, presided while R. W. Phillip, of Atlanta, acted as secretary.

J. W. Hames, superintendent of the Exposition Cotton Mills, and chairman of the carder's and spinner's division had charge of the discussion.

At the opening of the morning session David Clark, editor of the Southern Textile Bulletin was called upon for a short talk relative to the work of the Southern Textile Association and the possibilities of the work being attempted by the Operating Executives of Georgia.

Unfortunately for Mr. Clark he was compelled by a business engagement to catch a train immediately after the morning session and could not attend the luncheon or the afternoon session.

It also prevents us from having an account of the discussion at the afternoon session or a list of those attending the meetings.

The morning session was devoted almost exclusively to a discussion of the advantages and use of opening machinery and to lapper speeds and regulations.

It appeared the Georgia mills are very generously using Crichton or vertical openers and many are using them in tandem and some in triple tandem.

S. Wiseman, superintendent of the Enterprise Mfg. Co., has a set in triple tandem and had given close study to their advantage. He stated that he had grid bars in the middle one and expected to put them in the other two. He stated that his beater speeds for the first, second and third vertical openers were 650, 550 and 450 respectively.

He also stated that these machines had increased his breaking strength 8 to 10 pounds on 30s.

In answer to an inquiry from F. E. Heymer he gave figures relative to the dirt and leaf removed by each machine.

J. A. Sorrells, of New Holland, and Ed Chandler of Atlanta had obtained better results with two in tandem than from single openers.

G. A. Franklin stated that he expected to install them in triple tandem.

Geo. Murphy, of LaGrange, A. E. Massey, of Thomaston, G. R. Brook, of Greensboro, and others discussed at length the proper size and arrangement of dust rooms.

C. R. Brown, of Atco, described the Murray cleaning machine which he invented and W. O. Talbert, of Macon, spoke a word in its favor.

C. R. Brumley, of Cedartown, wanted to know if it would be advantageous to use vertical openers on good middling cotton and the answers given were in favor of its use.

Geo. Murphy, of LaGrange, J. Wheeler Mears, or Monroe, and C. A. Sweet, of Fairfax, described their systems of breaking up and uniform feeding in roving and scavenger waste.

J. W. Hames stated that after breaking up his roving and scavenger waste he sprayed it with a small amount of caustic in order to bring the fibres back to their natural state.

G. A. Franklin, J. Wheeler Mears, C. E. Davis, and F. E. Heymer, discussed at length the advantages and disadvantages of humidifiers. The majority opinion seem to be that moist cotton could not be cleaned as well as dryer cotton.

N. B. Murphy, of Shawmut, said the humidity should be added in the card room.

The subject of lappers being taken up, G. A. Franklin told of reducing beats per inch on finishers from 58 to 33 after putting in a vertical opener.

C. R. Brumley, N. B. Murphy and others increased breaking strength by reducing beater speeds.

Ball bearing on aprons were discussed with differences of opinion but many testified to their advantages on beaters and fans.

Just before the close of the morning session Mr. Clark had to leave and we regret not to be able to give more information relative to these interesting discussions during the afternoon session.

## Conditions in England.

There have been so many reports published relative to the condition of the textile industry of England that many had begun to believe that most of the mills in that country were idle.

The following extract from the recent report of the spinner's Federation will be found interesting:

"The summary of the statistics is as following and has been compiled from returns submitted by 204 firms. Particulars of the stocks of yarn on hand were not asked for. An analysis of the returns shows the following:

1. Normal production of the mills in 48 hours' working week: Mule yarn, 6,947,635 pounds; ring yarn, 3,140,186 pounds; folded yarn, 272,700 pounds; total, 10,360,519 pounds.

2. Actual production during week ended January 13: Mule yarn, 4,970,849 pounds; ring yarn, 1,938,723 pounds; folded yarn, 155,959 pounds; total 7,065,531 pounds.

3. Average counts of such production: Mules, 36s, rings, 31 1-2s; folded, 29 1-2s.

## Further Particulars.

4. Sales: Mule yarns, 6,687,021 pounds; ring yarns, 2,846,810 pounds; folded yarns, 167,036 pounds; total, 9,700,867 pounds.

5. Deliveries: Mule yarns, 5,189,820 pounds; ring yarns, 2,065,874 pounds; folded yarns, 130,587 pounds; total, 7,386,286 pounds.

The total number of spindles of the 204 firms supplying the statistics are: Mule, 11,341,291; ring, 3,123,264; doubling, 192,220; total 14,656,775.

The stocks of 101 mills have been reported to the Provisional Emergency Committee (which is not a committee of the federation) to average less than three weeks' normal production.

From the foregoing it can be shown that mule spindle production sold best.

Some 96 per cent of the full capacity of the spindles in a 48 hour week was sold. The sale of yarn spun on ring spindles equals 90 1-2 per cent of the capacity for a 48-hour week.

More business is being done on the market in yarns but prices are still bad. There are a great number of under sellers on the market who are taking low prices, and although the volume is increasing margins are extremely poor."

Buffalo, S. C.  
March 2, 1923.

Mr. David Clark,  
Charlotte, N. C.

Dear Mr. Clark:

I have carefully read the pamphlet on the child labor hearing which you sent me, for which I thank you.

The cotton industry of the South and the employes are due you everlasting gratitude and thanks for your untiring efforts put forth from time to time through your personal services and your journal to spread the truth about actual conditions among our mills. Having operated mills in New England for some years, I am in a position to know that it has been only for lack of knowledge on the part of the East to appreciate the wonderful advantages our operatives have and I believe your efforts are fast convincing other sections of the country that only facts have been given in the past. We are beginning to reap what we have sown and may you live to see the fruit full grown.

Very sincerely,

J. V. McCombs.



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WE ARE PROUD OF  
OUR (BALLER) DOG!

and many other  
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All high class

ENTWISTLE PRODUCTS

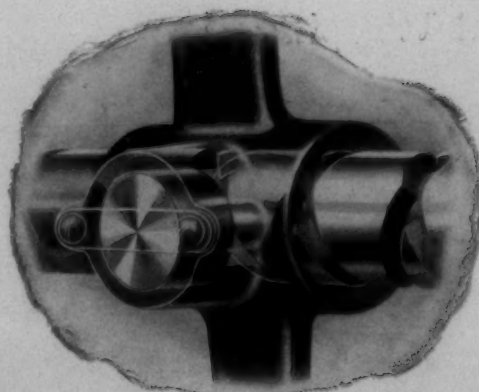
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should enjoy

Important Improvements  
obtainable only with

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AT NO EXTRA COST

*Illustrated and Descriptive  
Catalog on Request*



TRAVERSE DOG:

The new dog arrangement was designed to minimize the wear and prevent the breaking of dogs. However, if a dog does wear it is a very simple matter to replace it with a new dog. With the old style dog it is necessary to take the screw from the machine to make the change.

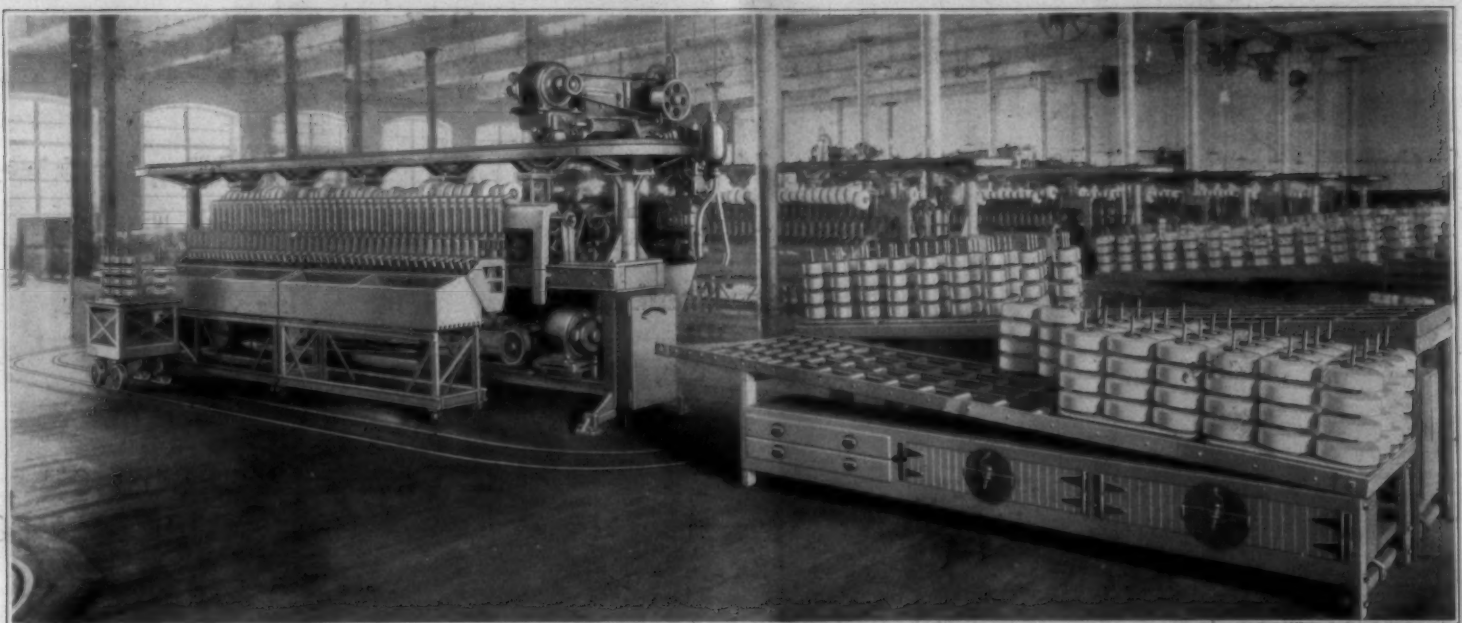
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# AUTOMATIC SPOOLER

with

# WEAVERS KNOTTER

---



Every mill man knows the advantages of the weavers knot over the round knot so commonly used in spooling.

It is sufficient to say that we can now supply our automatic spoolers equipped with weavers knotters.

On the following page we enumerate some of the benefits resulting from the use of the Barber-Colman Spooling and Warping process.

## BARBER-COLMAN COMPANY

Rockford, Illinois

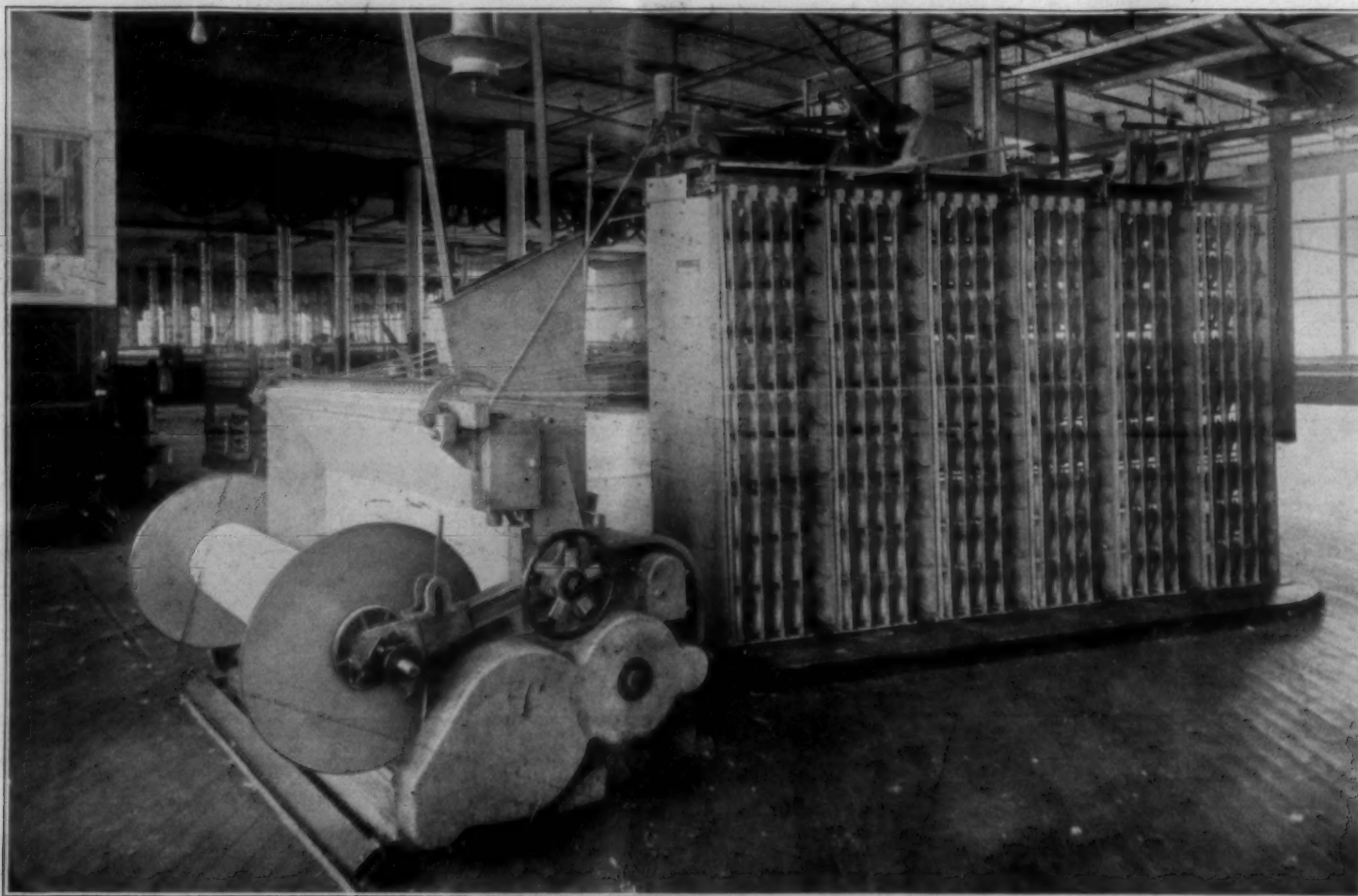
Boston, Mass.

Greenville, S. C.

---



# HIGH SPEED WARPER



Saves half the Employees in the Spooling and Warping Department.

Saves more than half the floor space.

Saves three quarters of the yarn in process in the Spooling and Warping Department—(Reduces Inventory).

Weavers Knots.

No Spooler Kinks.

Fewer ends broken in Warping—Better Slashing.

Yarn protected from damage and dirt because of Method of Handling.

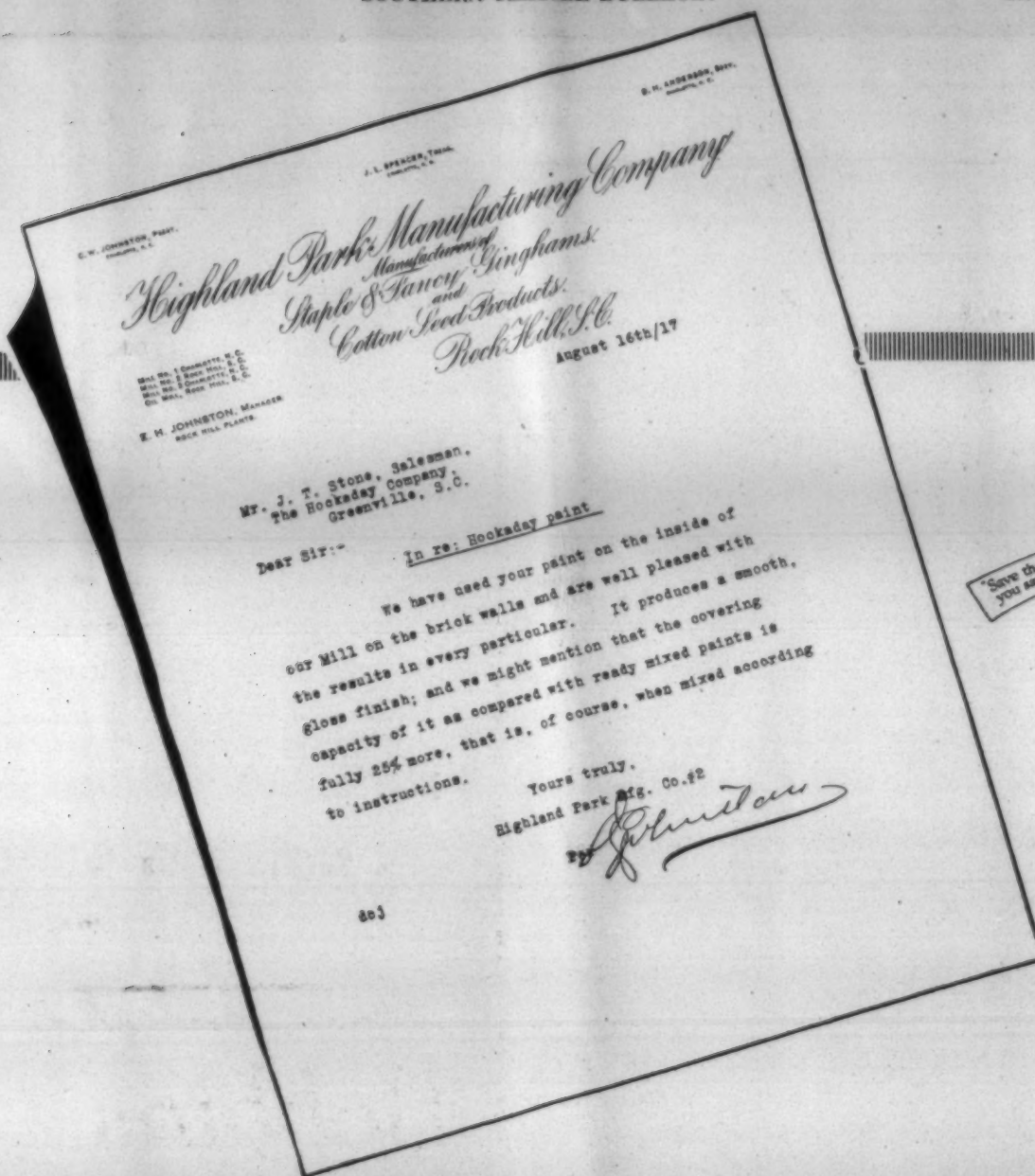
All of which result in better Weaving and increased Loom Production.

## BARBER-COLMAN COMPANY

Rockford, Illinois

Boston, Mass.

Greenville, S. C.



## Dollars and Sense Talk

### Figures don't lie—consider these:—

\$1.50 of labor with \$1.50 of HOCKADAY will produce a job that will last 10 years or longer.

Think this over. Compare it with the cost and life of other paints. Then you will realize why Hockaday is inevitably the most economical covering you can put on your walls!

Here are only a few of the advantages you can obtain by using Hockaday:

Only two coats are needed in color—no size—no primer.

Saves at least one-third labor and one-third material.

Spreads ten to fifteen per cent further.

Takes less time to apply—no brushing required.

Is really washable—can be relied upon to prevent peeling, checking suction and lime burning.

#### THE HOCKADAY COMPANY

1823-1829 Carroll Avenue Chicago.

O. H. Johnson, Mgr. Southern Branch Office, Newberry, S. C.



#### Did You Get Your Copy?

Our new book "Solving Your Painting Problems" is now ready for distribution. It's brim full of striking facts and illustrations. If you are at all interested in paint, send for it at once. It's free.

# HOCKADAY

## THE WASHABLE FINISH FOR ALL INTERIORS



## Personal News

E. A. Maddox has become night overseer carding at the Imperial Mills, Eaton, Ga.

W. R. Sinclair, of Lancaster, S. C., is now night overseer carding at the Wateree Mills, Camden, S. C.

A. R. Sam, of Darlington, S. C., is now night overseer spinning at the Wateree Mills, Camdn, S. C.

W. A. Hunt has become overseer carding at the United Spinning Mills, LaGrange, Ga.

Lonnie Green has been transferred from superintendent Bibb Mill No. 1 to Bibb Mill No. 2, Macon, Ga.

Harry Hamilton has been made superintendent Bibb Mill No. 4, Macon, Ga.

Walter Grayson has resigned as spinning overseer at Lauderdale Mills, Meridan, Miss.

Jacob Fernander has been appointed spinning overseer at the Lauderdale Mills, Meridan, Miss.

E. W. Spradley has resigned as overseer of spinning at Gem Yarn Mills, Cornelius, N. C.

J. E. Buchanan has been appointed overseer carding at Maginnis Mills, New Orleans.

E. E. Child has resigned as president and treasurer of the Glenn-Lowry Mfg. Co., Whitmire, S. C.

L. E. Beard has been elected secretary-treasurer of the Glenn-Lowry Mfg. Co., Whitmire, S. C.

S. Z. Mullis, overseer of carding at Gem Yarn Mills now has both carding and spinning at the above mills.

R. A. Hubbard has resigned as overseer spinning at the National Mills, Lumberton, N. C., to enter the grocery business in Charlotte.

W. M. Sherard has been re-elected vice-president and general manager of the Glenn-Lowry Mfg. Co., Whitmire, S. C.

G. C. Rambow is now overseer of spinning, both day and night, at the Marlboro Mills No. 5, Bennettsville, S. C.

Herbert Midgely, president of the Mass., is on a visit to the Atlanta Howard Bros. Mfg. Co., Worcester, shop and office this week.

H. B. Grover, formerly at LaFayette, Ala., has become master mechanic at the Selma (Ala.) Mfg. Co., succeeding Walter A. Dunavan.

J. H. Askew has become night superintendent and not overver weaving at the Henry Mills, Hawkinsville, Ga., as recently published through error.

J. J. Hord has resigned as night overseer weaving at the Baldwin Mills, Chester, S. C., to become overseer weaving at the Eureka Mills, of the same place.

J. F. Hunt has resigned as overseer carding at the United Spinning Mills, LaGrange, Ga., and accepted a similar position at the Adams Cotton Mill, Macon, Ga.

D. C. Jolly has resigned as second hand in carding at the Victor-Monahan Mills, Greenville, to become night overseer of carding at the Greenwood Mills, Greenwood, S. C.

D. E. C. Clough, formerly overseer carding and spinning at the Avondale Mills, Humboldt, Tenn., is now overseer carding and spinning and twisting at night at the O' Cedar Mills, Covington, Tenn.

Philip C. Wentworth, treasurer of the National Ring Traveler Co., Providence, R. I., is on a business trip through the South this week.

Geo. Wakler has been appointed Southern representative for the Sterling Ring Traveler Company, Fall River, Mass., succeeding Wm. E. Chesswell, deceased.

A. T. Quantz, general superintendent of the Aragon and Arcade Mills, Rock Hill, S. C., has been elected president of the Glenn-Lowry Mfg. Co., Whitmire, S. C.

### FOR SALE

200 4x1 Box Whitin Looms, 35" Reed space, 20 Harness Dobbies and Warp Stop Motion.

100 40-inch Modified D Draper Looms with feelers. Only three years old.

150 40-inch Plain Whitin Looms. Good condition.

Address—

J. M. WILLIAMS,

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Warp Bobbins  
a Specialty

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# MILL NEWS ITEMS OF INTEREST

**Boiling Springs, S. C.**—W. H. Shuford, of Hickory, has taken over the Winner Hosiery Mills, of this place.

**High Point, N. C.**—The Pointer Hosiery Mills will erect a new plant here to make hosiery. W. C. Covington, E. M. Covington and J. H. Adams are the incorporators.

**Chester, S. C.**—The Piedmont Contracting company, of Chester, has closed a contract with the Baldwin Cotton mills for the erection of 12 four-room houses at a cost of \$15,000. Work on the houses will be commenced at once.

**Griffin, Ga.**—The Georgia Cotton Mills is enlarging its bleaching plant. The present bleaching plant is not of sufficient size to handle the increased volume of goods now being produced by this company. The same company is erecting an additional water tank to hold 75,000 gallons and is boring three deep wells.

**Arcadia, S. C.**—Arcadia Mills, which now operates a 34,000 spindle mill will immediately begin the construction of a new mill, to be located near the present plant, it was announced by Vice President H. A. Ligon, Jr., following a meeting of the board of directors, held here. The new plant will cost approximately \$500,000 and will be built to house 20,000 spindles and weaving machinery.

**Fieldale, Va.**—The Fieldale Mills put into operation about 100 extra looms in the weaving department at night. Several looms have already been running on night time for a good while to help fill the large number of orders for the finished products of these mills. However, these extra looms will give employment to additional employes as it will make necessary extra work in other departments of the mill.

**Rockdale, Tex.**—The Rockdale Chamber of Commerce has undertaken to finance the establishment of a cotton mill in that community, and Secretary E. F. Drake, is now corresponding with textile men relative to the proposition. Rockdale proposes to finance a company capitalized at \$200,000 to \$250,000, and to give some experienced textile man an interest to take charge of the establishment of the mill.

**Spartanburg, S. C.**—A new \$1,000,000 hydro-electric development along Green river in western North Carolina was announced by the Blue Ridge Power Company, which has a plant on the stream in Henderson county at Tuxedo, which develops 8,000 horsepower and supplies power to cotton mills and several municipalities in North Carolina and in Spartanburg county in South Carolina. The location of the new development has not been made public but it is unofficially understood it will probably be below the present plant in Polk county.

**Greenwood, S. C.**—An extension of Grendel Mill No. 2, to cost approximately a half million dollars, was decided upon at a meeting of the board of directors. J. E. Sirrine and company, of Greenville, are the architects, and a contract for the work will be let at once, President J. P. Abney, announced. Actual work will begin about April 1 and will be completed next September, he said. The addition to the mill consists of an extension to the present mill building to be 141x132 feet wide. The extension will mean an addition of 12,000 spindles and 300 looms.

giving Grendel mill No. 2 a total of 41,000 spindles and 900 looms. With Grendel mill No. 1 the Grendel mills system will consist of 74,000 spindles and 1,702 looms.

About 200 additional operatives will be employed when the mill extension is completed. The village will be further enlarged and approximately 50 new houses will be built.

**Chattanooga, Tenn.**—The Batson Cook So., of West Point, Ga., has been awarded the contract for the addition to the Crystal Springs Bleachery, Chickamauga, Ga. The contract for the building alone involves approximately \$184,000. The building is 400 by 185 feet and will be of brick mill construction. Work is to start immediately. The same contracting firm is now building 68 cottages at the new plant of the Dixie Spinning Co. here.

**Whitmire, S. C.**—At a meeting of the directors of the Glenn-Lowry Manufacturing Co., held Monday in New York, A. T. Quantz was elected president, succeeding E. E. Child who has been president and treasurer. W. M. Sheard was re-elected vice-president and general manager, L. E. Beard, secretary and treasurer. The directors include Mr. Quantz and Mr. Beard, Mr. Sheard and J. P. Stevens, W. J. Gallon, R. E. Henry, G. M. Wright, C. M. Bailey and J. E. McDonald.

**Lancaster, S. C.**—Of much interest in textile circles throughout the Carolinas is that Col. Leroy Springs, president of the Springstein and Eureka Cotton Mills in Chester, will erect an additional weave shed to the Lancaster Cotton Mills, whereby the products of the coarser yarns will be cared for.

The coarser yarns, the product of low grade cotton, has been marketed by the foregoing mill as yarn, and it is now the purpose of the mill to weave it into cloth and to market only the finished product.

The Lancaster Mills has a battery of 3,008 looms and 139,608 spindles, and manufactures fine sheeting and yarns.

**Gaffney, S. C.**—Increase by 15,000 spindles of the Alma mill, at a cost of a half million dollars, giving the present mill a capacity of 25,000 spindles and placing it in the same class with the largest and most important textile manufacturing establishments in the state of South Carolina, was announced in Gaffney by Dr. W. C. Hamrick, president of the Limestone, Hamrick, Musgrove and Alma mills.

"All of our plans are now entirely complete, and so far as we can see, there is no reason in the world why the addition to the Alma mill should not be ready for occupancy late in the summer, with actual operations beginning in early fall," was the statement made by Dr. Hamrick. "This isn't a matter of having the addition under contemplation, but is merely a statement of fact that it

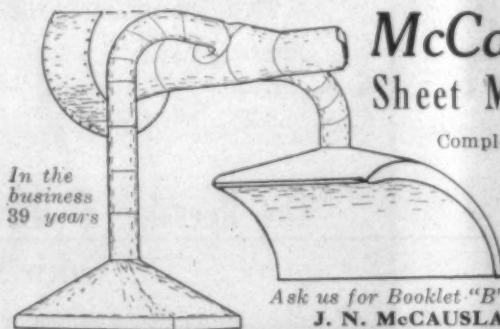
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will be made," declared Dr. Hamrick.

When the Cash mill was first organized, and later as the Alma mill began operations the total number of spindles was 10,000, and that is the figure at which it is operating at this time. The half million dollars addition will provide an additional 15,000 spindles or a total of 25,000 spindles, making this mill second only to the Gaffney Manufacturing company in capacity. When this addition is completed, Dr. Hamrick will be in control of nearly 100,000 spindles in Cherokee county.

The present capital stock of the Alma mill is \$400,000, but the company will sell as before stated to outside sources, an additional \$200,000 in the near future, reserving the remainder of the stock.

**Spartanburg, S. C.**—The Pacific mills of Boston have exercised their option on the seven hundred acre tract of land at Groce, ten miles west of Spartanburg, and will secure deed to the property within the next few days, interested parties announced in Spartanburg. This definitely closes up the deal whereby the Pacific company acquired land on which to erect a \$5,000,000 bleaching and print plant in connection with a 30,000 spindle mill in this section.

The Spartan academy property was sold on Saturday, while the Tyger Shoals directors met and voted to sell the holdings of the mill. The price involved is not named, but will be disclosed at the time of registering the deed. The land is owned by A. B. Groce, who holds 625 acres. The Tyger Shoals oil mill owns 91 acres and the Spartan academy own 57 acres. Mr. Groce and children own a majority of the \$30,000 stock of the Tyger Shoals mill.

**Marshville, N. C.**—Marshville is to have a cotton mill. The stock of \$100,000 has practically all been subscribed and the chapter applied for. At a meeting next Thursday, at which time it is expected that the character will have been secured the definite organization will take place.

The securing of the cotton mill was the first step of the recently organized chamber of commerce, of which E. E. Marsh, is president; J. Z. Green, vice president; and R. C. Newsom, secretary. Morehead Stack, of Monroe, who has made a study of mill work both from a collegiate standpoint and also from actual experience, and Joe Hudson, also of Monroe, who is interested in the work, allied with the Marshville promoters, and a visit to S. M. Robinson, of Lowell, a most successful cotton mill man, resulted in the

promises of Mr. Robinson to become **Oklahoma City, Okla.**—A cotton actively interested in the enterprisemill to cost about \$2,000,000 will be provided the citizens of Marshvillebuilt shortly near Tulsa, Oklahoma, would subscribe their share of the according to advices received here. stock. In a very few days the re-It is said that the capital is being quired amount of local stock wasfurnished by a prominent oil pro-subscribed, and several valuableducer there and that Amory, Browne tracks of land offered for the site & Co. will sell the production. of the mill. William C. Summersby, for the

past three years superintendent at the Boston Mfg. Co. in Waltham, has been placed in entire charge of the construction and operation of the plant. Mr. Summersby's previous mill experience includes connections with the Everett and Atlantic Mills, of Lawrence, and the Indian Head Mills, of Alabama, and also the Maginnic Mills, of New Orleans. He was a member of the class of 1914 at the Lowell Textile School.

#### Reported Merger With Hanes Mill is Denied.

**Winston-Salem, N. C.**—The report printed in a New York city newspaper that the P. H. Hanes Knitting Company, of this city, and five New York mills were to be combined in a 26-million-dollar corporation is positively denied at the offices of the Hanes Company here.

Announcement is made here that the report is absolutely without foundation.



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are used. Protection to the tensile strength of the fibres, better penetration of the dyes and bleach, absolutely clean goods are only a few of the many reasons of the growing demand for the Wyandotte Special Purpose alkalies.

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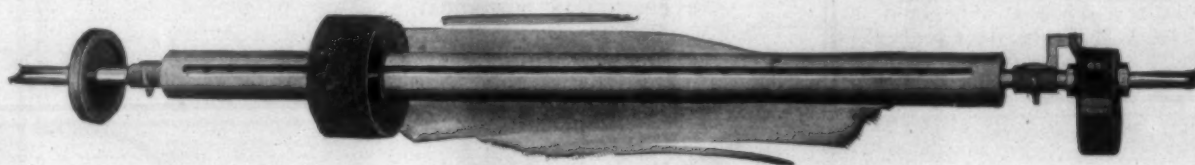
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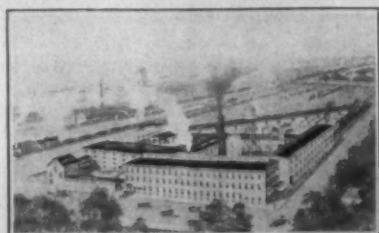
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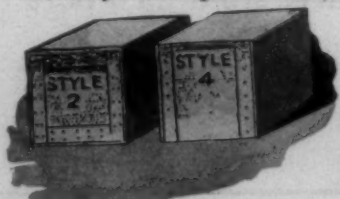
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LOOM PICKERS and  
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## Youtlen Cotton Opener.

(Continued from Page 12.)

be justly compared with the Crighton, and against this opener it stands out favorably, because it can be used for cottons of all classes. The Crighton is debarred from the longer stapled cottons, because intimate contact with the beaters causes stringing and cut fibre. It is also a discriminating opener because, in the vertical beater type, all material must be beaten to some degree irrespective of its needs, since there is not a free passage upwards to the outlet.

For dirty cottons the ever-clean grid surface and the withdrawal of air from the casing are distinct advantages, also for the stop down of the blast and condenser fan currents, and also for the adjustment of the rotor height there are corresponding provisions in the Crighton, but the latter has no equivalent of the blast pipe extension.

One's criticism of the machine's construction naturally tends towards questioning the omission of a conical rotor and cage with towards the delivery end of the machine, lighter blades, increasing space between rotor and cage, and smaller grid holes. But, in fairness to the extreme care in design, which is obviously the result of careful thought and extenuated evolution by experiment, it must be admitted that the reversing scrolls' effect of continually bringing back to the centre for retreat-

ment those portions which require it, is both unique and effective. Then, again, it is not universally accepted that the action of the conical beater machines is correct in submitting the material to a higher superficial beater speed as it becomes more opened and, therefore, more liable to damage.

Lastly, the matter of cost is important at the moment. Maintenance charges should be small, as the machine is well balanced and mechanically sound. The horse power absorbed is not excessive, since high speeds are neutralized by modern bearings and light construction. Initial cost, although comparatively high, is not all important if the return on the outlay is forthcoming in greater yarn strength, improved lustre and savings of waste by a decrease in damaged fibre.

## Haitian Textile Market Inactive.

Textile buying in Haiti has been fairly free for the last two months but not active in any sense, the Department of Commerce reports. Higher grades are rather overstocked. Mercantile business has been somewhat stimulated by the commencement of cotton picking. American goods in staple lines are holding their own but are meeting strong competition from the French in muslins, voiles, and fancy textiles. Cotton hosiery has sold well; stocks of the better class goods being low.

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## Cotton Notes

### The Week's Cotton Trade.

Prices for both spot cotton and future contracts in some markets crossed the 31 cent level during the week ending March 9. The highest prices were reached on March 7 and 8. On March 7, Middling spot cotton at Galveston was quoted at 31.40c per pound. On March 8, May future contracts at New York touched 31.48c. Later on in the week prices declined somewhat with a final net gain for the week of about 1-4 cent per pound.

Reports indicate rapidly diminishing unsold stocks of raw cotton in the South, with the tone of the dry goods markets healthy.

Spot sales were small, amounting to 45,161 bales, as compared with 86,168 bales the previous week. The closing average price for Middling cotton is 10 spot markets on March 9 was 30.51c as compared with 30.95c the high of the week.

Exports for the week amounted to 61,843 bales, compared with 107,854 bales the previous week and 119,132 bales for the corresponding week last year.

Certificated stock at New York on March 9 was 50,042 bales, and at New Orleans, 16,599 bales. Total stocks, all kinds, at New York, 64,279 bales, and at New Orleans 146,176 bales.

New York future contracts closed March 9: March 30.55c, May 30.70, July 29.80, October 26.41, December, 25.80; New Orleans closed: March 30.50c, May 30.27c, July 29.71, October 25.97, December 25.54. New Orleans spot cotton 31.00c per pound.

Cotton movement from August 1 to March 9:

	1923	1922
Bales	Bales	Bales
Port receipts	4,944,439	4,284,766
Port stocks	699,502	1,047,828
Interior receipts	6,613,900	5,842,850
Interior stocks	835,175	1,319,717
Into sight	8,679,658	7,764,105
Northern spinners' takings	1,809,122	1,689,209
Southern spinners' takings	3,444,721	2,693,279
World's visible supply of American cotton	2,629,677	3,811,221

### India Has Larger Cotton Crop This Year.

The India cotton crop for 1922-23 is placed at 4,348,000 bales of 478 pounds net in a final estimate by the India Department of Statistics in a cabled report to the United States Department of Agriculture. The crop last year totaled 3,735,000 bales. Acreage this year is placed at 21,119,000 acres, compared with 18,436,000 acres last year.



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**Has Cotton Market Reached Maximum?**

(By Arthur Shelton.)

With the leading cotton markets ranging around the 31 cent level much of the skepticism that cotton would sell at 30 cents again has passed and there are a few cotton people of good repute that will venture the opinion that cotton seems likely to reach 35 cents or higher. Some leading writers on cotton and statisticians have advised against the purchase of cotton at or above 28 cents and are now advising the sale of cotton at 30 cents. But it is my judgment that cotton must eventually reach higher prices to curtail consumption some million bales, which seems necessary to leave a requisite carryover. The recent advance from 28 to 31 cents has met opposition, as the previous advances had, and some hesitation or irregularity is possible, but the plantation receipts are now so small and the warehouse cotton is so strongly held that present conditions are not analogous to those of November or early February. The spot holders are of the opinion that cotton is worth more than present prices. Buyers are of the opposite opinion, of course; but there is little doubt who will win when the battle is finally waged. I still advise my mill clients to cover short cotton to September 30 and long staples as far into next year as sound financial policy will permit. An active and advancing goods market to late May is also likely, and sales should not yet be made except for nearby deliveries. The accumulation of long staple yarns and goods would even seem wise where financial policy will permit.

**S. C. Cotton Growers Receive New Advance From Cooperative.**

Columbia, S. C., March 6.—The South Carolina Cotton Growers' Cooperative Association has begun the distribution of approximately \$2,750,000 among its members, this representing the first additional advance made to them. It is hoped to complete the distribution within a week's time. Officers of the association stated that the distribution was a tremendous task, it being necessary to issue over 10,000 checks. The office force is working overtime, however, in an effort to rush them out as speedily as possible, it was stated.

The money will go into practically every county in the State, it was said, and is expected to have a good effect on general conditions.

Announcement was made by the Association that effective at once all members turning over cotton to the Association may make drafts upon it for an initial advance of 17 cents a pound for short staple and 23 cents a pound for long staple. Heretofore the initial advance has been 12 cents for short staple and 18 cents for long staple.

**Stocks of Cotton in European Ports.**

Stocks of cotton in European ports on February 2 totaled 886,330 bales in Great Britain; 196,470 in Havre; 43,750 in Genoa; 107,130 in Barcelona; and 119,080 at other Continental ports. Of this quantity, stocks of American totaled 515,880 bales in Great Britain; 183,010 at Havre; 38,000 at Genoa; 88,000 at Barcelona; and 116,590 at other Continental ports.

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# Cotton Goods

New York.—The cotton goods markets continued strong last week with further advances noted in both finished and unfinished goods. Production continues at a very high level, and goods are moving in keeping with the output. The continued high price of cotton continues as an unsettling influence. Jobbers are uneasy over the cotton situation and are buying as carefully as possible, although the sum total of their purchase is running into large amounts.

During the week, print cloths, sheetings and combed goods continued very firm at the highest prices seen this year. Prices in some lines of stockings and denims were again advanced. The demand for gingham continues strong and sales have been large. Novelty goods continue to sell freely.

Sales of cotton flannels and blankets continue large and prices showed an upward tendency. Some lines have been sold up and withdrawn. Quotations in bleached goods are advancing and new lists on wide sheetings and anticipated within a short time. The manufacturing trades made further inquiries regarding long future contracts for heavy goods. Manufacturing of duck clothing, awnings, denims, khaki, heavy sheetings, belting duck, press cloths, paper felts and a large number of other goods for various industrial purposes are enjoying and active business and their purchases are having a very substantial bearing on cotton consumption.

As the week closed, the cloth markets were quieter, but prices on practically all goods were very firm. Print cloths were quiet in Friday and Saturday, with practically no change in prices.

Narrow drills were in better demand. Sales of 3.95s were made at 13 1-4 cent and sales of 30-inch goods on a basis of 16 3-4 cent for 3-yards. These goods were wanted for converting, probably for khaki dyeing. Further business was done on satens, 64x104s selling at 19 cents. Small lot trading in spot of 72x80 pajama cloths at 12 1-3 cent was heard of and some scattered lots of twills were picked up.

Inquiries for tire fabrics ranged in individual instances for quantities between 50,000 and 150,000 pounds. The orders noted totaled approximately 500,000 pounds for all characters of fabrics. Interest in the East was lacking, the demand coming entirely from the West. Filling in quantity sales were lacking during the week.

Finishers and printers are so well tied up with pending business that much of the silk and cotton yardage they now hold will not be ready to pass on until late in the season. The feeling prevails that the country will continue to absorb the newest effect readily. By the time the later edition fabrics come forward it is expected that cloth sold earlier will be well worn out.

At Fall River the cloth market has been somewhat less active for the week, though there has been a fairly good inquiry for practically all styles of goods with the 36-inch low count tobacco cloths being in the more urgent demand. As a whole, the mills have shown very little disposition to accept orders, excepting for spot goods or nearby deliveries, owing to the continued high price of raw material and unsettled condition of the wage question. Buyers have been in the market prepared to contract for deliveries running through the next three months, and willing to meet the advance made in price soft from 1-8 cent to 1-4 cent over last week's quotations.

Cotton goods prices were quoted as follows:

Print cloths 28-inch 64x64s, 8 3-4 cents; 64x60s, 8 1-2 cents; 38 1-2 inch 64x64s, 11 3-4 cents; brown sheetings, southern standards, 16 1-2 cents; prints 11 cents; staple gingham 19 cents; dress gingham, 21 1-2 cents to 24 cents.

The 1922 cotton crop in the provinces of Sind and the Punjab has been 9 per cent above the average ten-year production. Shipments of raw Indian cotton to the United States through the port of Karachi during the last two months have totaled 3,885 bales, weighing 1,265,684 pounds.

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# The Yarn Market

Philadelphia. —Very little change was noted in the yarn market last week. On a few large sales were reported, although the aggregate of orders raging from 1,000 to 2,000 pounds reached a very substantial total. Most dealers reported a quiet market on the whole. The continued high prices for cotton are not yet fully reflected in yarn prices, the amount of new yarn business being too small to show a proportionate advance in yarn prices. With the very heavy cotton consumption and large exports, possibilities of lower cotton prices are remote at this time, it is thought.

Mills are very comfortably sold ahead and spinners are not worrying over the lessened buying noted recently. Prices on practically all lines continue very firm. Yarn quotations as generally quoted here are for the greater part, less than spinners will accept, the difference running from one to three cents. On some yarns, spinners are sold ahead for the new two or three months, and are extremely bullish in their price ideas for new business.

Buyers are operating as conservatively as possible, showing little disposition to anticipate their probable future needs.

Knitting yarns were quiet but not altogether as much so as for several weeks past. Several 50,000 and 100,000-pound orders came in at close to spinners' quotations. Contracts run through April, May and June. A number of requests for deliveries into the new cotton year met with scant encouragement.

Some advances were noted on Southern two-ply chain warps. The 12s, 14s, 20s, 30s, 40 and 50s are one cent higher. Two-ply skeins between 20s and 40s were advanced one cent. The differential between mills and stock prices has materially lessened. Some stock yarns are as much as one cent to two cent below spinners' quotations. The volume of yarns in stock has materially diminished as is evidenced in such key numbers as follows, but quotations on the market were as in a great many instances spinners are holding

prices well above these figures.

Southern Two-Ply Chain Warps.		
10s	47	a
12s to 14s	50	a51
2-ply 16s	52	a53
2-ply 20s	55	a
2-ply 24s	60	a61
2-ply 26s	61	a62
2-ply 30s	65	a66
2-ply 40s	73	a74
2-ply 50s	86	a87
Southern Two-Ply Skeins.		
5s to 8s	46	a
10s to 12s	48	a49
14s	49	a
16s	51	a52
20s	55	a
24s	60	a61
30s	64	a65
36s	71	a72
40s	73	a74
40s ex	76	a77
50s	84	a86
60s	92	a
Southern Single Chain Warps.		
6s to 10s	45	a46
12s	48	a
14s	49	a
16s	50	a
20s	52	a
24s	56	a
26s	59	a
30s	62	a63
40s	72	a73
Southern Single Skeins.		
6s to 8s	44	a45
10s	45	a46
12s	46	a47
14s	47	a48
16s	49	a50
20s	51	a52
24s	54	a55
26s	56	a57
30s	61	a62
Southern Frame Cones.		
8s	45½	a
10s	46½	a
14s	46¾	a
16s	47½	a
18s	48½	a49
20s	49½	a50
22s	50	a51
24s	52	a53
26s	53	a54
30s	56	a57
30s dbl crd	58	a60
30s tying in	55	a
40s	67	a68
Southern Combed Peeler Skeins. Etc.		
2-ply 30s	70	a
2-ply 36s	78	a
2-ply 40s	80	a
2-ply 50s	90	a
2-ply 60s	1 00a	
2-ply 70s	1 10a	15
2-ply 80s	1 25a	30
Eastern Carded Peeler Thread Twist Skeins.		
20s, 2-ply	55	a
22s, 2-ply	56	a
24s, 2-ply	58	a
30s, 2-ply	65	a
36s, 2-ply	71	a
40s, 2-ply	74	a
45s, 2-ply	80	a
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32 Whitin Spinning Frames, 3" Gauge, 192 Spindles each. Now running 30s Warp; 32 Whitin Spinning Frames, 2 3/4 in. Gauge, 176 Spindles each. Now running 40s filling.

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## EMPLOYMENT BUREAU

The fee for joining our employment bureau for three months is \$2.00 which will also cover the cost of carrying a small advertisement for one month.

If the applicant is a subscriber to the Southern Textile Bulletin and his subscription is paid up to the date of his joining the employment bureau the above fee is only \$1.00.

During the three months' membership we send the applicant notices of all vacancies in the position which he desires.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern Textile Industry.

WANT position as overseer weaving. Practical weaver of long experience who understands construction on wide variety of both white and colored goods. Good references. Address No. 3757.

WANT position as master mechanic. Now employed, but wish larger job. Have had 20 years experience in machine and mill shops, familiar with both steam and electric drive. Best of references as to character and ability. Address No. 3758.

WANT position as carder or spinner. Am practical carder, comb and spinner. Thoroughly understand combed hosiery and warp yarns. Finished on tubes or skeins. Capable of handling superintendents job. Best of references showing character, ability and experience. Address No. 3759.

WANT position as weaver or second hand in large room. Prefer white work. Am practical man and have long experience in good mills. Good manager of help, good habits. Excellent references. No. 3760.

WANT position as overseer weaving or superintendent. Good man of long experience. Can come on short notice. Good references. Address No. 3761.

WANT position as carder in large room. I can furnish references from a number of the best mill men in the South, showing an excellent record in every respect. Address No. 3762.

WANT position as supt. or weaver. Have had 12 years experience as overseer weaving, 4 years as superintendent. Prefer mill in Charlotte territory. Excellent references. Address No. 3765.

WANT position in mill office. Experienced bookkeeper, office manager and all around mill office man. Best of references. Address No. 3766.

WANT position as superintendent of weaving mill, North Carolina preferred. Have had 10 years experience as overseer on present job. Fully capable of handling large mill. Best of references from leading mill officials. Address No. 3767.

WANT position as superintendent of small yarn mill, overseer spinning or master mechanic. Long experience in all departments of mill and am practical and efficient man. Best of references. Address No. 3768.

WANT position as master mechanic. Long experience in boiler and machine rooms, expert on both steam and electric drive. Excellent references. Address 3769.

WANT position as superintendent or overseer weaving. Long experience in good mills, on wide variety of fabrics. Hard worker, good manager of help and can give fine references. Address No. 3773.

WANT position as carder and spinner, or both. Have had 25 years as such. 16 years in one mill as overseer. Can give excellent references from present employers. Address No. 3771.

WANT position as mechanic or electrician or would take assistant's place where there is good opportunity for advancement. Can furnish excellent references from superintendent and chief engineer where now employed. Address No. 3773.

WANT position as carder or spinner. Long experience, also graduate of I. C. S. course. Best of references. Address No. 3774.

WANT position as carder. Now holding carder's place in 30,000 spindle mill. Am 42 years old, strictly sober, good manager of help and can get good production. Experienced on all numbers from 4s to 30s also on waste yarns. Excellent references. Address No. 3776.

WANT position as supt. of yarn mill, or would take carding and spinning. Now with mill on chambrays. My experience covers long term of years, both as second hand and overseer. Excellent references. Address No. 3777.

WANT position as carder, spinner, or overseer spooling, winding, warping. Can furnish excellent references to show ability, experience and character. Address No. 3778.

WANT position as overseer spinning, 12 years as overseer spinning, spooling, warping and twisting. Now employed as carder, and am giving satisfaction, but wish larger place. Graduate I. C. S. course. Excellent references. Address No. 3779.

FIRST CLASS ROLLER coverer wants to change. Married, middle aged, best of references. Address No. 3780.

WANT position as superintendent or overseer weaving, white or colored work, plain and fancy weaves. Excellent weaver, good manager of help. Fine references. Address No. 3782.

WANT position as superintendent. First class man, 36 years in mill, held last job as superintendent in large mill for 5 years. Have been overseer for 15 years, superintendent for 5. Experienced carder, spinner and weaver. Can handle any kind of mill on white goods. Address No. 3785.

WANT position as supt. on colored, or plain or fancy goods, or assistant supt. in large mill. Would consider place as overseer weaving at room with more than 1,000 looms. 20 years in weaving, excellent references. Address No. 3787.

WANT position as overseer spinning. On present job for 4 years. Long experience. Age 38, married, have family of mill help. Fine references. Address No. 3788.

WANT position as shipping clerk or general office man in good mill. Experienced shipping clerk, pay roll and general office man. Have spent 10 years in mill. Age 26, settled and sober. Excellent references. Address No. 3789.

WANT position as overseer weaving. Now employed, but wish larger place. Excellent record over long term of years, first class references. Address No. 3790.

WANT position as overseer weaving, or second hand in large room. Experienced on many lines of goods, practical man, good worker and of good habits. References. Address No. 3791.

WANT position as overseer carding, or spinning, or both. Best of references show character and ability. Address No. 3792.

WANT position as overseer weaving, age 42, 12 years as overseer, experienced on plain twills and ducks. Now employed. Best of references. Address No. 3793.

WANT position as overseer weaving. Now giving satisfaction, but wish to change. Excellent references to show experience and ability. Address No. 3794.

WANT position as superintendent of weave mill. Long experience and am first class man. References to show character and ability. Address No. 3795.

WANT position as overseer carding of spinning. Have had 8 years as overseer age 35, married and can give good references. Address No. 3795.

WANT position as supt. of yarn mill, or carder and spinner. Can furnish references to show an excellent past record. Address No. 3796.

WANT position as supt. Now employed in large weave mill and giving satisfaction, but wish to change for good reason. Best of references. Address No. 3797.

WANT position as supt. of small yarn mill, or carder on large mill. Have been supt. for 9 years and always gave satisfaction. Excellent references. Address No. 3798.

WANT position as overseer weaving. Am practical man whose experience has been long and varied and can get quality and quantity production. Fine references. Address No. 3799.

WANT position as superintendent, weave mill on colored goods preferred. Have long record of successful service. Can take stock in good mill. Highest class references. Address No. 3800.

WANT position as superintendent. Practical man with long experience in number of good mills. Can furnish excellent references showing character and ability. Address No. 3801.

WANT position as carder or spinner, or both. Many years experience in both departments and am thoroughly trained and practical man. Best of references. Address No. 3802.

WANT position as overseer carding or would take second hand in large room. Now employed as overseer. Satisfactory references as to past record. Address No. 3803.

WANT position as superintendent, or would take assistant's place. Want mill on colored work, experienced on all kinds of colored goods, age 39, married and can give good references. Address No. 3804.

WANT position as overseer weaving. Familiar with variety of weaves and can furnish excellent references. Address No. 3805.

WANT position as superintendent, overseer weaving. Thoroughly trained in all departments of mill, I. C. S. graduate. Understand jacquard weaving. Age 30, married, no bad habits. Good references. Address No. 3806.

WANT position as overseer spinning or as assistant superintendent by man who can get results, either yarn or weave mill. Best of references. Address No. 3807.

WANT position as overseer spinning. Age 37, 12 years as overseer. First class references. Address No. 3808.

WANT position as superintendent, or overseer large card or spinning room. High class man, experienced and practical, references to show good past record. Address No. 3809.

WANT position as superintendent of large yarn mill. Have been overseer and superintendent in some of best yarn mills in North Carolina. Have fine record as to quality and quantity at low cost. Address No. 3810.

WANT position as carder or spinner or both. Capable of handling large room in first class man. Long experience, fine references. Address No. 3811.

WANT position as carder or spinner. Experienced mill man, now running card room at night, but want day job. Good references as to character and ability. Address No. 3812.

WANT position as superintendent. Practical man of long experience and ability to get good results. Now employed as superintendent. Good references. Address No. 3813.

WANT position as master mechanic. Have had 24 years experience in cotton mill shops both steam and electric drive. References. Address No. 3813-A.

WANT position as overseer weaving on Draper looms, plain white goods preferred. Now employed, but desire better job. Good references from good mill men as to character and ability. Address No. 3815.

WANT position as overseer carding. Good man, now employed, but wish better position. First class references showing good past record. Address No. 3816.

WANT position as superintendent of yarn or weave mill. Long experience in carding, spinning and weaving, and winding. Can get quantity and quality production at lowest cost. Age 39, good character and references. Address No. 3817.

WANT position as superintendent. Practical manufacturer of ability and experience. Good manager of help. Fine references. Address No. 3818.

WANT position as overseer weaving. First class weaver in every respect, sober, reliable and hard worker. Experienced on wide variety of goods. Good references. Address No. 3819.

WANT position as superintendent or manager of yarn or cloth mill in the Carolinas. Now general superintendent of large mill, have held job satisfactorily for three years but have good reasons for wanting to change. Good references. Address No. 3821.

WANT position as superintendent, overseer carding or assistant superintendent on yarn or plain cloth mill. High class, reliable man, good manager of help. A-1 references. Address No. 3822.

WANT position as overseer weaving. Strictly high class man of good character; long experience in weaving, best of references. Address No. 3823.

WANT position as superintendent, or carder or spinner. Now employed as spinner in mill on fine yarns and am giving entire satisfaction, but want

larger place. Good references. Address No. 3824.

WANT position as superintendent, carder or spinner. Practical man of long experience in good mills. Fine references. Address No. 3825.

WANT position as master mechanic. Now employed, but want larger job. Many years experience as mechanic, steam and electric drive. Excellent references. Address No. 3826.

WANT position as superintendent or traveling salesman. Experienced mill man and can give excellent references. Address No. 3827.

WANT position as superintendent. Have held position as such in some of the best mills in South and give satisfactory references to any mill needing first class man. Address No. 3827.

WANT position as master mechanic. Long experience in mill machine shop. Fully competent to handle large job. Fine references. Address No. 3829.

WANT position as overseer carding or spinning, or superintendent. Practical man who has had many years experience as superintendent and overseer and can get satisfactory results. Best of references. Address No. 3821.

WANT position as superintendent of yarn mill or carder or spinner. Thoroughly familiar with these departments and am well qualified to handle either a room or a mill. Good references as to character and ability. Address No. 3832.

WANT position as superintendent of mill in North Carolina making yarns or print cloths. Now employed as superintendent of 27,000 spindle mill making 30s hosiery yarn and 64x60s print cloth. Am giving satisfaction but have good reason for making change. Best of references. Address No. 3833.

WANT position as superintendent or overseer carding. Long experience as both and can get good production at low cost. Would like to correspond with mill needing high class man. Address No. 3834.

WANT position as overseer of carding. Good worker of long experience in number of good mills. First class references to show past record. Address No. 3835.

WANT position as superintendent or overseer carding and spinning. Now employed, but wish larger place. Competent, reliable man who can give satisfaction in every way. Good references. Address No. 3836.

WANT position as superintendent or manager. Have had long experience as superintendent and am high class man in every respect. Can handle mill on any class of goods made in South. Want to correspond with mill needing high class executive. Excellent references from reliable mill men. Address No. 3837.

WANT position as overseer weaving. Practical weaver who can get big production at the right cost. Fine references. Address No. 3838.

WANT position as overseer weaving. Can handle any fabric made in South. Have had over 27 years experience from loom fixer to overseer weaving and was promoted steadily by one of largest mills in the South. Married, have family, religious worker, good manager of help. Can give excellent list of references. Address No. 3839.

WANT position as superintendent, prefer South Carolina or Georgia. Now employed as assistant superintendent and weaver and am giving entire satisfaction. Have good reasons for wishing to change. Excellent references. Address No. 3840.

WANT position as overseer weaving, prefer job of fancies. Have been weaver for past 10 years with one of the finest mills in the South. Excellent references to show a fine record. Address No. 3841.

WANT position as superintendent, yarn mill preferred. High class man who is well trained and has had long experience. Best of references. Address No. 3842.

WANT position as superintendent. Now employed as such, but want better job. Good weaver as well as superintendent and get operate weave mill on very satisfactory basis. Address No. 3843.

WANT position as superintendent, carder or spinner. Now employed as superintendent. Long experience as both overseer and superintendent and can get satisfactory results. Address No. 3844.



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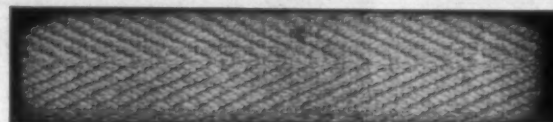
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The Morse silent chain is used because of its superiority based on the design of the exclusive "rocker-joint" construction, the very highest grade of material and heat treatment, the extreme accuracy in manufacturing and the engineering assistance in the designing of textile drives by engineers trained in this particular line and backed by the long standing reputation of the MORSE CHAIN COMPANY.

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"MORSE" is the guarantee always behind our  
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**SACO-LOWELL  
SERVICE**

**BULLETIN NO. 4**

Our Southern Repair Shop in Charlotte is under the direction of Mr. W. E. Harvell who has had twenty years experience with us in rewinding lickerins and reclothing top flats.

Before Mr. Harvell took charge of this shop he served several years as an erector of Saco-Lowell cards.

His men have been trained carefully and have also had years of experience.

Such experience does count and we want to give you the benefit of this experience by rewinding your lickerins and reclothing your flats.

We rewind all makes of lickerins and reclothe all makes of flats.

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ORDINARY RUSSET BELTING  
AFTER 30 DAYS' USE.

This RUSSET belt has but 78% pulley contact at the end of 30 days, running over a smooth flat pulley.



The ability of a belt to transmit power is directly proportional to its pulley contact.

Therefore, this russet belt cannot transmit more than 78% as much power as SLIP-NOT.

SLIP-NOT belting will transmit from 20 to 40% more h.p. under the same conditions than ordinary leather belting, with less slip and stretch.

Ask us more about SLIP-NOT belting. We will be glad to send you our booklet upon request.

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